



THE  
Allahabad University  
MATRICULATION  
EXAMINATION PAPERS

IN

*English, Mathematics, Persian, Sanskrit, Arabic, History,  
Geography, Elementary Science, Geometrical  
Drawing and Political Economy*

FROM 1908 TO 1909

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PUBLISHED BY

RAM DAYAL AGARWALA

*Bookseller and Publisher, Allahabad.*

1911

Price 8 As.



# ALLAHABAD UNIVERSITY.

## MATRICULATION EXAMINATION PAPERS.

1908.

### ENGLISH.—FIRST PAPER.

Prose.

(Write the answers to the different sections in separate answer books.)

#### Section A.

1. In the following passages, explain the portions in italics:—

(a) "As a *landsman*," says Colonel Fisher, who was on board the "Plover" gun-boat in the *hottest fire* on the Peiho river, "I was much struck with the *coolness* with which the *navigation* of the vessel was attended to; the man in the *chains* cries the *soundings*, the master gives his orders to the man at the *helm* and the engineers below; the *helmsman has no eyes or ears*, but for the master's directions and signals."

(b) The first wars that the Romans engaged in beyond the bounds of Italy were with the Carthaginians. This race came from *Tyre and Zidon*; and were descended from some of the *Phœnicians*, or *Zidonians*, who were such dangerous foes or more dangerous friends to the *Israelites*. Carthage had, as some say, been first founded by some of the *Canaanites* who fled when Joshua conquered the *Promised Land*; and whether this were so or not, the inhabitants were in all their ways the same as the *Tyrians* and *Zidonians*, of whom so much is said in the prophecies of Isaiah and Ezekiel.

(c) He had likewise seen some service against the Spaniards, and after his return had been made a Captain in the *Lifeguards* and a *Gentleman of the Bedchamber*. Vandyke



has left portraits of the father and the son; the one a bald-headed, alert, preciselooking old warrior, *with the cuirass and gauntlets of elder warfare*; the other *the very model of a cavalier*, tall, easy, and graceful, with a gentle, *reflecting* face, and wearing *the long lovelocks* and deep point lace collar and cuffs characteristic of Queen Henrietta's Court.

2. Rewrite passage (a) above, changing the direct form of speech into the indirect form.

3. Give in your own words—not exceeding 3 (three) pages of your answer book—the story of either of the following “Golden deeds” :—

The Keys of Calais.

The Carnival of Perth.

## B.

4. The priests and many of the Senate held the rash young men had deserved death, as covenant-breakers; but their father made strong interest for them and prevailed, not only to have them spared, but even chosen tribunes to lead the legions in the war that was expected.

What is the object of the verb held? Parse as, covenant-breakers, and chosen. What were legions and tribunes? Explain made strong interest.

5. Give the meaning of the following extracts in your own words :

(a) A sinful heart makes failing hand.

(b) The battle on the banks of the river Allia was not so much a fight as a rout.

(c) It is with iron, not gold, that Romans guard their country.

(d) There shall not be a spot in my realm where the key shall not keep the castle, and the bracken bush the cow, though I lead the life of a dog to accomplish it.

6. Rewrite in your own words the story of Damon and Pythias.

## C.

7. What is meant by alliteration, metaphor, and antithesis? Give one example of each occurring in the following passage, and explain the phrases in italics:—

They were now turning to the eastward, and had reached the range of steep and *barren hills*, which *binds in that quarter* of the *naked plain*, and varies the surface of the country, without changing its *sterile character*. Sharp rocky eminences *began to arise* around them, and in a short time, deep declivities and ascents; both formidable in height and difficult from the narrowness of the path, *offered* to the travellers obstacles of a different kind from those with which they had recently contended. Dark caverns and chasms among the rocks, those grottoes so often alluded to in *Scripture*, *yawned fearfully* on either side as they proceeded, and the Scottish knight was informed by the Emir that these were often the refuge of beasts of prey, or of men still more ferocious, who *driven to desperation* by the constant war, and the oppression exercised by the soldiery, as well of *the Cross* as of *the Crescent*, had become robbers and spared neither *rank* nor *religion*; neither *sex* nor *age*, in their depredations.

8. (a) Explain the Grammar of the portions printed in italics of the following passage:—

Nothing commends a young man so much to his employers as accuracy and punctuality in the conduct of business. *And no wonder*. On each man's exactitude in doing his *special best* depends the *comfortable and easy going* of the whole machine. In the complicated tasks of social life no genius and no talent can compensate for lack of obedience. If the clock goes fitfully, nobody *knows* the time of day; and if your allotted task *is* a necessary link in the chain of another man's work, you are his clock, and he ought to be able to rely on you. The greatest praise that can be given to the member of any association is in these terms:—This is a man who always does what is required of him and who always appears at the hour when he is expected to appear.

(b) Analyse in tabular form the last sentence beginning with the words "The greatest, &c."

## ENGLISH.—SECOND PAPER.

## Poetry.

## D.

1. Explain clearly in your own words the following passages :—

- (a) "Oh! would, strange bird, I too could sweep  
Unharm'd along life's angry deep,  
Nor heed the lowering clouds that roll  
And darken round the struggling soul—  
Like thee could soar, and breast, elate  
The mists of doubt, the storms of fate."

Parse fully the words underlined in the above passage.

- (b) "To trust to the world is to build on the sand :—  
I'll trust but in Heaven, and my good Right Hand."

What lesson is to be derived from these two lines?

- (c) "We know when moons shall wane  
We summer birds from far shall cross the sea,  
When autumn's hue shall tinge the golden grain—  
But who shall teach us when to look for thee?"

2. Give the meanings of the following expressions ; also state clearly but briefly the connections in which they are used :—

"Blessed barrier between day and day"

"The angel of Death."

"Seargill's whispering trees."

"Messenger of Spring."

## E.

3. Give in your own words the substance of the poem "A Legend"; point out what lesson the poet intends to teach from it. *Your answer must not exceed 2 pages.*

4. Explain clearly and concisely the phrases underlined in the following extracts :—

- (a) "One sleeps where southern vines are dressed  
Above the noble slain"

- (b) "A poet could not but be gay  
In such a jocund company."

- (c) "There is a power whose care  
Teaches thy way along that pathless coast."

- (d) "The frame thy wayward looks deride  
Required a God to form."
- (e) "His steeds to water at those springs  
On chaliced flowers that lies."

## F.

5. All thoughts of ill ; all evil deeds,  
That have their roots in Thoughts of ill ;  
*Whatever* hinders or impedes  
The action of the nobler will :—  
*All these* must first be trampled down  
Beneath our feet, if we would gain  
In the bright field of fair renown  
The right of *eminent domain*.  
We have not wings, we cannot soar ;  
But we have feet *to scale and climb*  
By slow degrees, *by more and more*,  
The cloudy summits of our time.

State, in your own words, the plain meaning of the above passage. Explain the grammatical construction of the words and phrases in italics.

6. Amongst the many advantages of experience, one of the most valuable is that we come to know the range of our own powers, and if we are wise we keep contentedly within them. This relieves us from the malady of eagerness : we know pretty accurately beforehand what our work will be when it is done, and therefore we are not in a hurry to see it accomplished. The coolness of old hands in all departments of labour is due in part to the cooling of the temperament by age ; but it is due even more to the fulness of acquired experience, for we do not find middle-aged men so cool in situations where they feel themselves incompetent.

State, as briefly as possible, the plain meaning of the above passage. Analyse the first sentence.

## URDU.—THIRD PAPER.

(N.B.—Write the answers to the different sections in separate answer books.)

## G.

1. Translate into English :—

ایک عورت کا اکلوتا لڑکا جیوں ہی چلنے پھرنے لگا

کہ یکایک مر گیا۔ وہ اپنے مُردے بچے کو پیار کے مارے اپنی چھاتی میں لگا کر گھر گھر پھرنے لگی اور اوسکے لیئے دوا مانگتی پھرتی۔ ایک فقیر نے اُسکو دیکھ کر سمجھ لیا کہ یہ عورت ناسمجھ ہے۔ اُسنے اوس عورت سے کہا

”اے میری بچی میرے پاس تو اُسکی کوئی ایسی دوا نہیں ہے جسے تم مانگتی ہو پڑھاں میں جانتا ہوں کہ میرے مُردے کے پاس اُسکی دوا ہے۔ وہ عورت مُرشد کے پاس گئی اور کہنے لگی کہ حضرت آپکو کوئی ایسی دوا معلوم

ہے جو میرے بچے کو فائدہ کرے۔ مُرشد نے جواب دیا کہ تیسرا سا سرسوں لاؤ مگر ایسے گھر سے مانگ لاؤ جہاں کبھی کسیکا بیٹا بیٹی ماں باپ بھائی بہن شوہر اور جو رو یا

خادم اور خادمہ نہ مرے ہوں۔ وہ عورت اپنے مُردے بچے کو لیکر چلی اور سرسوں مانگتی پھری۔ لوگوں نے کہا ”لو سرسوں لو“۔ پر جب عورت نے پوچھا کہ آپ کے گھر کبھی بیٹا بیٹی ماں باپ بھائی بہن شوہر جو رو یا خادم خادمہ مرے ہیں یا نہیں تو اونہوں نے جواب دیا کہ ”اے بھلی مانس یہ کیا بات کہتی ہو“۔ زندوں کی گنتی کم ہے اور مردوں کی گنتی بہت ہے۔ کسینے کہا کہ میرا بیٹا مر گیا ہے دوسرا بولا میرا باپ تیسرے نے کہا میرا نوکر گزر گیا ہے۔ آخر کار جب اُسکو ایک بچی گھر ایسا نہلا جہاں کوئی نہ کوئی نہ مرا ہو تب اوسکو سمجھ آئی اور اپنے مُردے بچے کو جنگل میں پھینک کر مُرشد صاحب کے پاس لوٹ آئی۔ تب مُرشد جی نے اوسے سمجھایا کہ یہ دنیا گزر جانیوالی ہے اور سب کچھ نیست ہو جائیگا۔ عورت کو ہوش آگیا اور وہ اوس مُرشد کی مرید ہو گئی \*

H.

بادشاہوں کو کبھی کبھی اپنا پہچنوانا مشکل ہوتا ہے۔ تھوڑے دنوں کی بات ہے کہ یورپ کے ایک بادشاہ کی تختنشینی کے جلسہ میں ایک بم کے گولے کے پھٹ جانے سے بہت آدمی اپنی جانوں سے گئے اور بہت سے زخمی ہوئے۔ ایک دن بادشاہ اوس اسپتال میں گئے جہاں زخمی لوگ علاج کے لیئے بھیجے گئے تھے۔ ایک زخمی بوڑھی عورت کے سرھانے جاکر بادشاہ نے پوچھا کہ تو اوس جگہ کیوں گئی تھی۔ اوس عورت نے روکھے پن سے جواب دیا کہ میں بادشاہ کو دیکھنے گئی تھی۔ بادشاہ نے کہا پھر تو اوس بادشاہ کو جی بھر کر دیکھ لے۔ میں ہی تو بادشاہ ہوں۔ عورت نے غصہ کی نظر سے دیکھ کر کہا کہ سردوے کیوں جھوٹا بکتا ہے۔ میری اتنی عمر آگئی کیا مجھے یہہ معلوم نہیں کہ بادشاہ تیرے ایسے نہیں ہوتے \*

HINDI.

(N.B.—Write the answers to the different section in separate answer books.)

G.

Translate into English :—

एक औरत का एकलौता लड़का ज्यों ही चलने फिरने लगा कि एका एक सर गया। वह सारे प्यार के अपने मुँद बच्चे को छाती में लगाकर घर घर फिरने लगी और उसके लिये दवा मांगती फिरी। एक साधू ने उसको देखकर समझ लिया कि यह औरत नासमझ है। उसने उस औरत से कहा बच्ची मेरे पास तो इसकी कोई दवा नहीं है जो तुम मांगती हो। पर हाँ मैं जानता हूँ कि मेरे गुरु जी के पास इसकी दवा है। वह औरत गुरु जी के पास गई और

कहने लगी स्वामी जी आप को कोई ऐसी दवा मालूम है जो मेरे बच्चे को हित करे। गुरु जी ने जवाब दिया कि थोड़ा सा सरसों लाओ पर ऐसे घर से मांग लाओ जहां कभी किसी का बेटा बेटा, मां बाप, भाई बहिन, स्वामी स्त्री, चाकर चकरानी न मरे हों। वह औरत अपने मुर्दे बच्चे को लेकर चली और सरसों मांगती फिरी। लोगों ने कहा लेओ-सरसों लेओ। पर तब औरत ने पूछा कि आप के घर कभी बेटा बेटा, मां बाप, भाई बहिन, स्वामी स्त्री या चाकर चकरानी मरे हैं या नहीं, तो उन्होंने ने जवाब दिया कि श्री भली मानुष यह क्या बात कहती है। ज़िन्दों की गिनती कम है और मुर्दों की गिनती बहुत है। किसी ने कहा मेरा बेटा मर गया। दूसरा बोला मेरा बाप मर गया। तीसरे ने कहा मेरा नौकर गुज़र गया है। निदान जब उसको एक भी घर ऐसा न मिला जहां कोई न कोई न मरा हो तब उसको बोध हुआ और अपने मुर्दे बच्चे को जंगल में फेंक कर गुरु जी के पास लौट आई। तब गुरु जी ने उसे समझाया कि यह संसार अनित्य है और सब कुछ नश्वर है। औरत को ज्ञान भया और वह उस गुरु जी की चेलिन हो गई ॥

H.

बादशाहों की कभी कभी अपना पहचनवाना कठिन होता है। थोड़े दिनों की बात है कि यूरोप में एक बादशाह के तख्त पर बैठने के समय जो जलसा हुआ उसमें एक खम के गोले के फट जाने से बहुत आदमी अपनी जानों से गये और बहुत से ज़खमी हुए। एक दिन बादशाह उस हस्पताल में गये जहां ज़खमी लोग इलाज के लिये भेजे गये

थे । एक जखमी बूढ़ी औरत के सिरहाने जाकर बादशाह ने पूछा कि तू उस जगह क्यों गई थी । उस औरत ने रूखेपन से जवाब दिया कि मैं बादशाह को देखने गई थी । बादशाह ने कहा फिर तू उस बादशाह को जी भर देख ले मैं ही तो बादशाह हूँ । औरत ने क्रोध दृष्टि से देखकर कहा कि मरदुए क्यों झूठ बकता है मेरी इतनी उम्र आई क्या मुझे यह मालूम नहीं कि बादशाह तेरे ऐसे नहीं होते ॥

### ENGLISH COMPOSITION.

Write an essay on "Holidays and how to use them," taking care to show clearly what part in your opinion reading should play during a long vacation. Mention also any six books known to you which you consider good holiday reading.

### MATHEMATICS.—FIRST PAPER.

#### Arithmetic and Algebra.

1. Find the sum of the 21 odd numbers which follow 15432.
2. Reduce.

$$\frac{1}{2} + \frac{2}{3} + \frac{3}{4} + \frac{4}{5} - \frac{13}{6} - \frac{1}{20}$$

to a fraction in its lowest terms.

3. Find all the prime numbers less than a hundred.
4. Simplify  $(a+b+c)^2 - 2(b+c)(a+b+c) + (b+c)^2$ .
5. Find the G. C. M. of  $8x^3 + 38x^2 + 59x + 30$ , and  $6x^3 - 13x^2 - 13x + 30$ .
6. Solve the equation  $13x^2 - 90x - 7 = 0$ .
7. Solve.

$$\begin{aligned} x + y &= 5 \\ x + 3y &= 13. \end{aligned}$$



8. If  $\frac{a}{b}$  be a proper fraction, and  $x$  a positive number, prove that  $\frac{a+x}{b+x}$  is greater than  $\frac{a}{b}$ .
9. Break into factors  $x^2 - 2x - 15$ .
10. Trace the graph of  $y = 2x + 1$ .
- 

## MATHEMATICS.—SECOND PAPER.

### Geometry.

#### PART I—PRACTICAL GEOMETRY.

*(Proofs of constructions are not to be given but construction lines must be shown in all cases.)*

1. Draw a quadrilateral  $ABCD$  from the following data:—

$$AB = 1.5 \text{ in.}, \quad BC = CD = 2.1 \text{ in.},$$

$$DA = 2.5 \text{ in.}, \quad BD = 2.6 \text{ in.}$$

Reduce the quadrilateral to an equivalent triangle and find its approximate area by measuring the base and altitude of the triangle.

2. Make a rectangle of area 3 sq. in. and construct an equivalent square. Measure a side of your square to the nearest hundredth of an inch and write down the result.

3. Draw two straight lines inclined to one another at an angle of  $41^\circ$  using your protractor and then describe a circle of radius 0.9 in. to touch them.

4. Describe two circles of radii 1.2 in. and 0.8 in. respectively, and having their centres 1.6 in. apart. Draw a common tangent, and measure its length to the nearest hundredth of an inch between the points of contact.

5. Find by geometrical construction a straight line of length  $\frac{1.1 \times 2.0}{1.7}$  in. Measure the line that you have found to the nearest hundredth of an inch, and write down the result.

## PART II.—THEORETICAL GEOMETRY.

6. If two right-angled triangles have their hypotenuses equal, and one side of the one equal to one side of the other, prove that the triangles are congruent.

$DE$ ,  $DF$  are drawn perpendicular to the sides  $AC$ ,  $AB$  of a triangle  $ABC$ , from the middle point of the base  $BC$ . If  $DE=DF$ , prove that  $AB=AC$ .

7. If a pair of opposite angles of a quadrilateral are supplementary, prove that its vertices are concyclic.

The internal bisectors of the angles of a quadrilateral form a quadrilateral whose vertices are concyclic. Prove this.

8. Illustrate and explain by a diagram the geometrical proposition corresponding to the algebraical formula:—

$$a^2 - b^2 = (a + b)(a - b).$$

$ABCD$  is a straight line. If  $AB=BC$  and  $AC=CD$ , prove that the rectangle contained by  $AD$  and  $DC$  is equal in area to eight times the square on  $AB$ .

9. If two chords of a circle intersect inside the circle, prove that the rectangle contained by the parts of the one is equal to the rectangle contained by the parts of the other.

A perfectly round ball is cut straight through into two unequal parts, and the smaller part is made to stand upon its flat face. If its height is now found to be 0·8 in. and the diameter of its base 5·6 in., find the radius of the ball.

10. If two triangles have one angle of the one equal to one angle of the other, and the sides about these equal angles proportional, prove that the triangles are similar.

Two sides of a triangular field measure 370 yards and 285 yards respectively, and the angle between them is  $64^\circ$ . Make a drawing of the field to scale 1 in. = 100 yds., and find approximately the area of the field in square yards, by measurement from your plan and calculation.

## HISTORY.

(Answers to Parts I and II to be written in separate Answer Books marked I and II respectively.)

PART I.

1. Write short notes on *four only* of the following :—Domesday Book, Simon de Montfort, the Feudal System, the Suppression of the Monasteries, the Petition of Right, The Treaty of Utrecht, the Rising of 1745.

2. Describe the events which led up to the signing of Magna Charta and mention its most important provisions.

3. Describe how the English lost their hold of France after the death of Henry V.

4. What were the immediate causes of the War that ended in the loss to England of her North American Colonies?

5. *Either* state what you know about the movement started by John Wesley and its results.

or

Explain what need there was for the Reform Bill of 1832. Describe the agitation which it provoked.

PART II.

6. Give a brief account with dates of the Invasion of the Punjab by Alexander the Great.

7. Mention with dates the chief events in the lives of *three only* of the following :—

Asoka, Muhammad Ghorî, Sivaji, Warren Hastings, Dost Muhammad.

8. Sketch the character of Aurungzeb and compare it with that of Akbar.

9. Describe briefly the struggle between the French and English in Southern India.

10. What administrative acts and works of public utility mark the Governor-Generalship of Lord Dalhousie?

ARABIC.—FIRST PAPER.

Text-book and Grammar.

(N. B.—Give vowel-points to every Arabic word you write in your answers.)

1. Translate into English :—

قلها قرأ نعمة هذا الشجر هبلى عينا بالدموع - فقالت

له القهر مائة ما الذي يبكيك يا ولدي - لا ابكي الله لك  
 عينا - فقال العجبي يا ستي كيف لا يبكي ولدي وهذه  
 جاريته وهو سيدها نعمة بن الربيع الكوفي - وعافية  
 هذه الجارية مرهونة برويته - وليس بها علة الا هواه -  
 فخذي يا ستي هذه الالف دينار لك عندي اكثر من ذلك -  
 وانظري لما بعين الرحمة - ولا تعرف اصلاح هذا الاسر الا  
 منك - فقالت العجوز لنعمة هل انت مولاها - فقال نعم -  
 قالت صدقت - فانها لا تغتر عن ذكرك - فاخبرها نعمة بها  
 قد جرى له من الاول الى الآخر \*

2. (a) What is the word <sup>س</sup>سِي corruption of? Give its  
 literal meaning.

(b) Give the broken plurals (جمع مكسر) of: شعر - شعور -

عجزة - ابن - جارية - دينار - عين (an eye) - عين (a stream)

(c) Account for the omission of تنبيه in عينا.

3. Translate into English, explaining allusions, if any:—

سبح اعرابي قارئاً يقرأ - الاعراب اشد كفراً و نفاقاً -  
 فقال لقد هجانا - ثم سمعه بعد ذلك يقرأ - و من الاعراب  
 من يؤمن بالله و اليوم الآخر - فقال لا بأس - هجانا و مدح -  
 هذا كما قال الشاعر \*

\* شعر \*

هجوت زهيرا ثم اني مدحته  
 وما زالت الاشراف تهجى وتهدح

Translate into English:—

(a) لا تكن للعيش مجروح الغواد  
 انها الرزق على الله الكريم

- كن غني القلب و اقنح بالقليل  
 مت و لا تطلب معيشا من لئيم  
 (b) رضىنا قسوة الجبار فينا  
 لنا علم و لاجهال مال  
 فان الهال يغنى عن قريب  
 و ان الهال مابق لا يزال  
 الم تر ان الدهر يوم و ليلة (c)  
 يكران من سبت. جديد الى سبت  
 فقل لجديد الثوب لابد من يلى  
 وقل لاجتماع الشبل لابد من شت  
 ذهب الشباب فماله من عودة (d)  
 واتى الهشيب فاين منه الهرب  
 و الروح فيك ودية اودعتها  
 ستردها بالرغم منك و تساب  
 و غرور دنياك الذي تسعى بها  
 دار حقيقتها متاع يذهب  
 و اليل فاعلم و الهار كلاهما  
 انفسنا فيها تعد و تحسب  
 و جميع ما خلفته و جهته  
 حقا يقينا بعد مونك يذهب  
 و ذر الكذب فلا يكن لك صاحب  
 ان الكذب يشين خلا يصحب

5. (a) Give the governments of the following, with examples :—

متى - صار - ايت - حاشا

(b) Give صيغة, باب, and اسم of the following, explaining the تعليل, if any :—

تعد and اودعت - قل - ام تر

## ARABIC.—SECOND PAPER.

Translation from Arabic into English.

1. Translate the following into English:—

A.

نقل ان الرشيد كانت عنده جارية - يحبها محبة  
شديدة - وكانت سوداء واسمها خالصة - جالسة عنده -  
وعليها من الجواهر والدرر ماشاء الله تعالى - وكان لا  
يفارقها ليلاً ولا نهار - فدخل عليه ابونواس و مدحه بابيات  
بليغة - فلم يلتفت اليه - و بقي مشغولاً بالجارية - فحصل  
لابي نواس غيب في نفسه - فخرج و كتب على باب  
الرشيد:—

لقد ضاع شعري علي بابكم  
كما ضاع عقد علي خالصة

فقرأه بعض حاشية الهلک - ثم دخل و اخبره بذلك -  
فقال عاي بابي نواس - فلما دخل عليه من الباب مها  
تجويف العين من الموضوعين من لفظ ضاع و ابقى اولها  
علي صورة الههزة - ثم اقبل علي الهلک - فقال له ما  
كتبت علي الباب ؟ قال كتبت:—

لقد ضاع شعري علي بابكم  
كما ضاع عقد علي خالصة

فاعجب الرشيد ذلك و اجازة بالف درهم \*

B.

حكاية عن القاضي يحيى بن اكنم قال بت ليلة عند  
الهاسون - فعطشت في جوف الليل - فقمت لاشرب ماءً -  
فراني الهاسون - فقال - مالك يا يحيى ؟ قلت - يا  
امير المؤمنين انا والله عطشان - قال ارجع الي موضعك -  
فقام والله الي محل الماء فجاءني بكوز ماء - و قام علي

رَأْسِي - فَقَالَ اشْرَب يَا يَحْيَى - فَقُلْتُ - يَا أَمِيرَ الْهُومَنِيِّينَ  
هَلَا وَصِيفَ أَوْتَوْصِيفَةً - قَالَ أَنَهُمْ نِيَامٌ - قُلْتُ كُنْتُ أَنَا أَقُومُ  
لِلْمَشْرَبِ - فَقَالَ لِي لَذَمٌ بِالرَّجُلِ الَّذِي يَسْتَعْدِمُ ضَيْفَهُ - ثُمَّ  
قَالَ - يَحْيَى؟ فَقُلْتُ - لَبِيبُكَ يَا أَمِيرَ الْهُومَنِيِّينَ - قَالَ أَلَا  
أَحَدُكُمْ - قُلْتُ بَلَى يَا أَمِيرَ الْهُومَنِيِّينَ - قَالَ حَدِّثْنِي الرَّشِيدَ -  
قَالَ حَدِّثْنِي الْهَمْدِي - قَالَ حَدِّثْنِي الْهَنْصُورَ عَنْ أَبِيهِ عَنْ  
عَكْرَمَةَ عَنْ ابْنِ عَبَّاسٍ رَضِيَ اللَّهُ عَنْهُ قَالَ قَالَ رَسُولُ اللَّهِ  
صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ - سَيِّدُ الْقَوْمِ خَادِمُهُمْ \*

C.

(1) قِيلَ أَنَّ عَلِيًّا رَضِيَ اللَّهُ عَنْهُ خَطَبَ ذَاتَ يَوْمٍ - فَقَالَ  
فِي خُطْبَتِهِ عِبَادَ اللَّهِ - الْهُوتُ ! الْهُوتُ ! وَلَيْسَ مِنْهُ فُوتٌ -  
أَنْ أَقْبَلْتُمْ أَخَذَكُمْ وَأَنْ فَرَرْتُمْ عَنْهُ أَدْرَكَكُمْ \*

(2) حِكَايَةٌ عَنْ بَعْضِ الْأَدْبَاءِ - قَالَ - حَضَرَ رَسُولُ مَلِكٍ  
الرُّومِ عِنْدَ الْهَتُوكَلِّ - فَاجْتَمَعَتْ بِهِ - فَقَالَ - لَهَا أَحْضِرِ الشَّرَابَ -  
مَالَكُمْ مَعَاشِرَ الْمُسْلِمِينَ ! قَدْ حَرَّمَ عَلَيْكُمْ فِي كِتَابِكُمُ الْخَمْرَ وَ  
لَحْمَ الْخَنَازِيرِ \*

(3) قِيلَ لَهَا هَرَبَ مُوسَى بْنُ عَمْرٍاءَ عَلَيْهِ السَّلَامُ مِنْ  
فِرْعَوْنَ - وَبَلَغَ أَرْضَ مَدْيَنَ أَخَذَتْهُ الْحَدْيِي - وَقَدْ أَصَابَهُ الْجُوعُ  
بَعْدَ ذَلِكَ فَشَكَّى إِلَى رَبِّهِ - فَقَالَ يَا رَبُّ أَنَا الْغَرِيبُ وَأَنَا  
الْمُهْرِيضُ وَأَنَا الْفَقِيرُ - فَقَالَ اللَّهُ تَعَالَى - أَمَا تَعْرِفُ مَنْ  
الْغَرِيبُ وَمَنْ الْمُهْرِيضُ وَمَنْ الْفَقِيرُ - قَالَ - لَا - قَالَ الْغَرِيبُ  
الَّذِي لَيْسَ لَهُ مِثْلِي حَبِيبٌ - وَالْمُهْرِيضُ الَّذِي لَيْسَ لَهُ  
مِثْلِي طَبِيبٌ - وَالْفَقِيرُ الَّذِي لَيْسَ لَهُ مِثْلِي وَكَبِيلٌ \*

### THIRD PAPER.

#### Translation from English into Arabic.

1. Translate the following into Arabic with vowel marks very carefully set :—

- (1) God is very great. We worship Him. He created us. He gave us eyes to see; and gave us ears to hear.
- (2) I travelled from *Basrah* to *Kufah*.
- (3) He slept the whole night.
- (4) God will pardon your sins.
- (5) Wash your hands and your faces.
- (6) I did not see him since Friday.
- (7) By God, I will never drink wine.
- (8) By God, I will certainly beat Zaid.
- (9) Neither Zaid is in the house nor Umar.
- (10) Certainly Bakar is standing.
- (11) Mahmud is absent but Mohammad is present.
- (12) Our king is just.
- (13) The tribe came to me, except Zaid.
- (14) You will certainly not see me.
- (15) If you beat, I will beat.
- (16) The poor man became rich.
- (17) I found Ahmad in the market-place.
- (18) Hamid came in my house.
- (19) He reads Arabic language in the school.
- (20) Time of examination is near.
- (21) I do not worship whom you worship.
- (22) We worship *Allah*.
- (23) Is there any man in thy house?
- (24) Joseph (يوسف) came to me.
- (25) Noah (نوح) called his Lord.
- (26) Abraham (ابراهيم) was father of Ismaeel (اسماعيل).
- (27) They go to Mecca for pilgrimage.
- (28) All praise is due to God, the Lord of the whole world.
- (29) A ruler without justice is like a river without water.
- (30) She gave her one thousand *dinars*.
- (31) Saifuddoula (سيف الدولة) died in *Halab* in the month of *Safar*. He was brave, generous, and a poet.



## PERSIAN WITH ARABIC.

## SECOND PAPER.

## Text-book and Grammar.

1. Translate the following into English :—

(1) سالے از باغ با شامیانم سفر بود و راه از حرامیان  
پر خطر - جوانے ببدرقه هه راه ما شد سر باز چرخ انداز  
سلسشور بیش زور که ده مرد توانا کمان او را زه نکردند  
و زور آوران روے زمین پشت او را بر زمین نیاوردند =  
اما چنانکه دانی متنعم بود و سایه پرورده نه جهان دیده  
و سفر کرده رعد کوس دلاوران بگوشش فرسیده و برق  
ششیر سواران ندیده \*

(2) کبوتر را گفتند - چون است که از دو بچه بیش  
نیاری و چون مرغ خانگی بر بیشتر ازان قدرت نداری =  
گفت بچه کبوتر غذا از حوصله مادر و پدر میشود و  
چوزه مرغ خانگی از مزبله بر هر راهگذر - از یک حوصله  
غذای دو بچه بیش نتوان داد و از نیم مزبله در روز  
هزار چوزه در روزی توان کشاد \*

(3) و میفرماید خورده بین بزرگ زیان است مردمان  
بے مایه را زنده نه شهید - اگر خواهی که بیرنج توانگر  
باشی پسند کار باش - هم او فرماید مرگ بهتر از نیازی  
بہ همسران خویش - و بگرسنگی مردن به که بنا فرومادگان  
سیور شدن - هر اندیشه که بتو رسد بر سست پیمانان  
استوار مباش و بر استواران سستی منها \*

(4) و او تہانجات بخویشان و اقربای مردار خوار  
سپرده - مستغیثان بجهانت داروغه مذکور بعدالت آن  
فرزند بار نمی یابند و جہے مال مردم خوار او باش رفیق  
دامادش شده خلق الہ را ایذا میدهند چیرانم کہ دو

وقت جزاے اعمال چہ جواب خواهید داد - حق سبحانه و تعالیٰ عادل است - اگر ظالم را کار فرما کنیم هر عذابے که از ظالم ماسور ما برما آید عدل است و بان سزاواریم \*

2. Give the different meanings of گردن and برآمدن and make short sentences in Persian illustrating them.

3. Write some Persian endings denoting likeness, and give an example of each.

4. Translate the following into English :—

(1) ز مغرور دنیا ره دیں معجوعے  
خدا بینی از خویشتن پس معجوع  
گسرت جاه باید مکن چون خسان  
به چشم حقارت نگه در کسان  
گهان کے سرور مردم ہوشمند  
کہ در سر گرانی است قدر بلند  
اویں ماسور تر محلے معجوع  
کہ خوانند خلقت پسندیدہ خوے  
نگر چون توئی بر تو کبر آورد  
بزرگش نہ بینی بچشم خرد  
تو نیز از تکبر کنی همچندان  
نہائی کہ پیشت تکبر کنان

(2) روزے کہ جزاے هر صفت خواهد بود  
قدر تو بقدر معرفت خواهد بود  
در حسن صفت گوش کہ در روز جزا  
حشر تو بصورت صفت خواهد بود

5. Explain the following in Persian :—

ز آتش وادی ایمن نہ منم خرم و پس  
موسس اینجا بامید قیسے می آید

کس ندانست که منوالگه مقصود کجا است

اینقدر هست که بانگ جر سے می آید

6. Analyse the last couplet according to Persian Grammar.

7. Give rules for forming Imperative Mood, 2nd Person, Active Voice, in Arabic. Illustrate your answer with examples.

8. Name half a dozen Arabic افعال ناقص (verbs of incomplete predication), and write short sentences with vowel points illustrating the use of each.

## SECOND PAPER.

### Translation from Persian into English

1. Translate the following passages into English :—

(a) هرمز را گفتند از وزیران پدر چه خطا دیدی که  
بند فرمودی؟ گفت گناهی معلوم نکردم و لیکن بی‌یقین  
دانستم که مهابت من در دل ایشان بیکرانست و بر عهد  
من اعتماد کلی ندارند تو رسم که از بیم گزند خویش آهنگ  
هلاک من کنی پس قول حکما را کار بستم که گفته اند \*

\* قطعه \*

ازاں کز تو ترسد بتوس اے حکیم  
و گر با چنوصد بر آبی بجنگ  
ازاں مار بر پسای راعی زند  
که ترسد سرش را بکوبد بسنگ  
نه یعنی که چون گربه عاجز شود  
بسر آرد بچنگال چشم پلنگ

(b) پارسا زاده را نعمت بیکران از تریکهٔ عیان بدست  
افتاد فسق و فجور آغاز کرد و مبدری پیشه گرفت فی  
الجملة نهاند از سائر معاصی منکریکه نکرد و مسکریکه

نعمتور - بارے بہ نصیحتش گفتم اے فرزند دخل آب  
روانست و خرج آسیای کردان - یعنی خرج فراوان کردن  
مسلم کسی را باشد کہ دخل معین دارد \*

\* قطعه \*

چو دخلت نیست خرج آهسته تر کن  
کہ می گویند ملاحان سرودے  
بکوهستان اگر بسارا نہ بارے  
بسالے دجلہ گردن خشک رودے

پسر از لذت نای و نوش این سخن در گوش نیاورد  
و بر قول من اعتراض کرد و گفت راحت عاجل را بہ  
تشویش معذمت اجل منغص کردن خلاف راے خردمندان  
است فکیف مرا کہ صدر مروت نشسته ام و عقد فتوت  
بسته و ذکر انعام در افواہ عوام افتاده \*

\* مثنوی \*

ہر کہ علم شد بسخاؤ گرم  
بند نشاید کہ نہد بر درم  
نام نکوئی چو بروں شد بکوے  
در فتوانی کہ ببندی بروے

(c) حکمت - جوہر اگر در خلاف افتد ہمان نفیس  
است و غبار اگر بر فلک رود ہمان خسیس - استعداد  
بے تربیت دریغ ست و تربیت نامستعد ضایع - خاکستر  
نسبتے عالی دارد کہ آتش جوہر علویست و لیکن چون  
بنفس خود ہنرے ندارند خاک برابر است - و قیہت شکر  
نہ ازلی ست کہ آن خود خاصیت وے است \*

\* مثنوی \*

چو کنعان را طبیعت بے ہنر بود  
پیہیز زاد کسی قدرش نیفزود

هنر بنما اگر داری نه گـوهر  
گل از خارست و ابراهيم از آزر

2. Translate into English:—

(a) دیدم گل تازه چند دسته  
بر گنبدی از گیاه بسته  
گفتم چه بود گیاه ناچیز  
تا در صف گل نشیند او نیز  
بگریست گیاه و گفت خاموش  
صحت نکند کرم فراموش  
گر نیست جمال و رنگ و بویم  
آخر نه گیاه باغ اویم  
من بنده حضرت کروییم  
پرورده نعمت قدیم  
گر بے هنرم و گر هنرمند  
لطف ست امیدم از خداوند  
بسا آنکه بضاعتی ندارم  
سرمایه طاعتی ندارم  
او چاره کار بنده داند  
چون هیچ وسیلتش نهاند  
رسم ست که مالکان تحریر  
آزان کنند بنده پییر  
اے بار خدای عالم آرا  
بر سعدی پییر خون ببخشا  
سعدی ره کعبه رضا گیر  
اے سر خدا ره خدا گیر  
بند بخت کسی که سر بتابد  
زین در که در دگر بیابد

(b) نغورد شیرنیم خوردۀ سگ  
 گر بسختی بهیرد اندر غار  
 تن به بیچارگی و گرسنگی  
 بنده و دست پیش سغله مدار  
 گرفتار شود بنعمت و ملک  
 بے هنر را بهیچ کس مشمار  
 پرنسیان و نسیج برنا اهل  
 لاجورد و طلاست بر دیوار

(c) از صحبت دوستی برونجم  
 کاخلق بدم حسن نهاید  
 عیبم هنر و کمال بیند  
 خارم گل و یاسمن نهاید  
 کوهشون شوخ و چشم بیدار  
 تا عیب مرا بمن نهاید

(d) دست برهم زند طبیب ظریف  
 چون خوت بیند اوقات حریف  
 خواجه در بند نقش ایوانست  
 حانه از پای بست ویرانست  
 پیرو مردی بنزع می نالید  
 پیرو زن صندلش هبی نالید  
 چوون مخبط شد اعتدال مزاج  
 نه عزیمت اثر کند نه علاج

(e) گلے خوشبوئے در حمام روزی  
 رسید از دست محبوبی بدستم  
 بدو گفتم که مشکي یا عپیری  
 که از بوئے دلاویز تو مستم

بگفتا من گله ناسچیز بودم  
و لیکن مدتی باگل فشستم  
جهال همنشیں در من اثر کرد  
وگرنه من ههان خاکم که هستم

### THIRD PAPER.

Translation from English into Persian.

1. Translate the following passages into Persian :—

(a) Once at Carthage there was a slave named Androcles who was so badly treated by his master that he resolved to run away from him. He therefore secretly left his master's house, and hid himself in a forest some miles distant from the city. After wandering about for some time, he came to a large cavern, and, overcome by hunger and fatigue, he lay down in it, and soon fell fast asleep. He was suddenly awakened by the roar of a wild beast, and was so frightened that he ran to the mouth of the cavern, but was met by a great lion, which stood right in his way, and made it impossible for him to escape. The slave expected nothing else than to be at once torn to pieces, but, to his great surprise, the lion came gently towards him without shewing any signs of enmity or rage. It gave forth at the same time a low and mournful sound, as if it were begging his assistance.

(b) By this time the moon began to rise, and cast over the plain her light which was of much assistance to us. The first thing was to examine the ground, and the soil being light and sandy, we had no difficulty in tracking the murderers for some distance. The science of tracking was well understood by our companions, and I have known such adepts in the art as to be able to follow a track for hundreds of miles. I was once with a party of villagers and police following a number of Thugs, who had murdered five travellers on the preceding night. The ground was hard and covered with grass, and beyond the marks of a struggle here and there, I could see nothing. But the trackers with me told me the number of men, women, children and ponies of which

the party consisted, and the description turned out right in every particular.

(c) On the 19th of June 1819, the western part of India was visited by an earthquake, which spread desolation and panic over a vast extent of country. It was felt from Bombay to Ceylon; but the centre of the shock seems to have been in the province of Cutch, which suffered severely. The first and greatest shock took place on the 16th June, a few minutes before 7 P.M. The wretched inhabitants of Bhoj were seen flying in all directions to escape from their falling habitations. A very dreadful noise, the violent undulatory motion of the ground, the fall of the buildings, and the terror which appeared in every countenance, produced a sensation fearful beyond description. The shock lasted from two to three minutes, and in which short period the city of Bhoj was almost levelled to the ground.

### SANSKRIT.—FIRST PAPER.

#### Text-book and Grammar.

#### 1. Translate into English :—

कस्मिंश्चिज्जलाशयेऽनागतविधाता प्रत्युत्पन्नमतिर्यद्विष्य-  
श्चेति त्रयो मत्स्याः प्रतिवसन्ति स्म । अथ कदाचितं जला-  
शयं दृष्ट्वा गच्छद्भिर्मत्स्यजीविभिरुक्तम् । अहो बहुमत्स्योऽयं  
हृदः कदाचिदपि नास्माभिर्नवेषितः । तदद्य तावदाहारनि-  
वृत्तिः संजाता संध्यासमयश्च संजातः । ततः प्रभातेऽत्रागन्त-  
व्यमिति निश्चयः । अथ तेषां तत् कुलिशोपमं वधः समाकुर्या  
ऽनागतविधाता तौ मत्स्यावूचे । अहो श्रुतं भवद्भ्यां यन्मत्स्य-  
जीविभिरभिहितम् । तद्वात्रावपि गम्यतां किञ्चिन्निकटं सरः ॥

(a) State the धातु and प्रत्यय in अभिहित and प्रत्युत्पन्न.

(b) Conjugate the roots of प्रतिवसन्ति and संजातः in the preterite (लुङ्).

(c) Decline त्रि and आगच्छत् in all cases and genders.



2. Write out in prose order :—

शत्रुमुन्मूलयेत् प्राज्ञस्तीक्ष्णः तीक्ष्णेन शत्रुणा ।  
व्यथाकरं सुखार्थाय कण्टकेनेव कण्टकम् ॥  
योऽमित्रं कुरुते मित्रं वीर्याभ्यधिकमात्मनः ।  
स करोति न सन्देहः स्वयं हि विषमक्षणम् ॥  
न स्वल्पस्य कृते भूरि नाशयेन्नतिमान्नरः ।  
एतदेवात्र पाण्डित्यं यत्स्वल्पाद् भूरिरक्षणां ॥

(a) Parse the underlined words.

(b) State the rules of संधि in कण्टकेनेव, योऽमित्रं, वीर्याभ्यधिकं and नाशयेन्नतिमान्.

(c) Decline भूरि and कृते in the objective case.

3. Write out the purport in English or Hindi :—

(a) अत्यच्छेनाविरुद्धेन सुवृत्तेनातिचारुणा ।  
अन्तर्भिन्नेन संप्राप्तं सौक्तिकेनापि बन्धनम् ॥

(b) आरम्भगुर्वी क्षयिणी क्रमेण  
लघ्वी पुरा वृद्धिमती च पश्चात् ॥  
दिनस्य पूर्वार्धपरार्धभिन्ना  
ह्यायेव सैत्री खलसज्जनानाम् ॥

(a) Re-write the extract (a) changing the passive into the active construction.

(b) Parse the underlined words.

4. मनसा चिन्तितं कार्यं वचसा न प्रकाशयेत् ।  
अन्यलक्षितकार्यस्य यतः सिद्धिर्न जायते ॥  
सेवितव्यो महावृक्षः फलच्छायासमन्वितः  
यदि दैवात् फलं नास्ति ह्याया केन निवार्यते ॥

(a) Translate the above into English or Hindi.

(b) Expound and name the Samāsas in the underlined words.

(c) Conjugate the roots सेव् and अस् in the preterite लिट्.

5. तां तु राजा दशरथो महाराष्ट्रविवर्धनः ।  
पुरीमावासयामास दिवि देवपतिर्यथा ॥

(a) Write out the above extract in prose order.

(b) Decline द्यो and राजस् in all cases.

## SECOND PAPER.

Translation from Sanskrit into English.

Translate the following extracts into English :—

- (a) न नरस्य नरो दासो दासस्त्वर्थस्य भूपते ।  
गौरवं लाघवं वापि धनाधननिबन्धनम् ॥ १ ॥  
यो यत्र कृण्वतः कार्यं तं तत्र विनयोजयेत् ।  
कर्मस्वदृष्टकर्मा यः शास्त्रज्ञोऽपि विमुह्यति ॥ २ ॥  
यत्र विद्वज्जनो नास्ति श्लाघ्यस्तत्राप्यधीरपि ।  
निरस्तपादपे देशे एरण्डोऽपि द्रुमायते ॥ ३ ॥  
शङ्काभिः सर्वमाक्रान्तमन्नं पानं च भूतले ।  
प्रवृत्तिः कुत्र कर्तव्या जीवितव्यं कथं तु वा ॥ ४ ॥  
स्तोकेनोन्नतिमायाति स्तोकेनायात्यधोगतिम् ।  
अहो सुसदृशी वृत्तिस्तुलाकोटेः खलस्य च ॥ ५ ॥  
को धर्मो भूतदया, किं सौख्यमरोगिता जगति जन्तोः ।  
कः स्नेहः सद्भावः, किं पाण्डित्यं परिच्छेदः ॥ ६ ॥

(b) पितुराज्ञया रासो वनं जगामेति निजजनन्याः कैकेय्या  
मुखादुपश्रुत्य भरतो सहता दुःखेनाभिभूतो भ्रातरं द्रष्टुं वना-  
भिमुखं चचाल । कालेन प्राप च भरद्वाजमुनेराश्रमपदम् । ततो  
मुनिवरेण दर्शितमार्गोऽचिरादेव चित्रकूटपर्वतं ययौ । तत्र

महतीं पर्णशालामधिवसन्तं ससीतं सहलक्ष्मणं रामं दृष्ट्वा  
दुःखमोहपरिप्लुतो भरतोऽतित्वरया तमवाप्य प्रस्थिन्नमुखी  
नेत्राभ्यामश्रुजलं वर्षन् बहु विलगन् तस्य पादयोः पपात ।  
अनन्तरं शत्रुघ्नोऽपि रुदन् श्रीरामचरणौ ववन्दे । रामोऽप्यु-  
भावपि आतरौ दीनावस्थां गतौ समालिङ्ग्य लोचनाभ्याम-  
श्रूणि सुमोच । अथ लब्धसंज्ञं भरतमङ्कमारोप्य सादरं पर्य-  
पृच्छत तात, कस्मात् त्वमरण्यमागतोऽसि । अपि कुशली तव  
पिता । जीवतस्तस्य तव वनागहनं न सम्भवति । इति आतु-  
र्वचनं श्रुत्वा भृशदुःखितो भरतः प्रत्युवाच आर्य, त्वद्विरहात्  
तातो लोकान्तरं गतः । राज्यं च सम्प्रति अराजकम् । अतस्त्यां  
सप्रश्रयं प्रार्थयेऽयोध्यां प्रतिनिवृत्य तद्राज्यस्वीकारेणानुगृहा-  
यास्मान् पौरजानपदांश्चेति ॥

### THIRD PAPER.

Translation from English into Sanskrit.

A.

Translate into Sanskrit :—

- (1) The trees which we planted in our garden, bear fruit in autumn.
- (2) Of quadrupeds, the elephant is the largest, and the mouse is the smallest.
- (3) The business being accomplished, we started for home.
- (4) He was unable to restrain his passions.
- (5) A good man has no fear of death.
- (6) Virtuous conduct leads to prosperity.
- (7) I will give that kingdom to my faithful minister.
- (8) He bought a horse for a thousand rupees.
- (9) The mother leads her child home.
- (10) The king reigned for fifty years.

B.

One day the fox came, and, having approached and made obeisance, said, " Hail, O king of the beast ! how is the health

of your majesty?" The lion answered, "O my friend, I am very feeble, and all my teeth have fallen out and my appetite is quite gone: please to enter my poor dwelling that I may listen to your conversation." The fox said, "In the first place answer me one question. I see here the footmarks of a great many animals that have entered your dwellings; how is it that there is no trace of any one that has returned."

## SCIENCE.—FIRST PAPER.

### Physics.

1. What is the standard of length on the metric system? Name its multiple and submultiple divisions, and state the principle on which the system is based. What are its advantages? Compare the volumes of two cubes, the area of each face of one of which is thrice that of the other.
2. Distinguish between the mass and the weight of a body. Describe an experiment to illustrate that the weight of a body may be made to appear greater than it actually is, the mass remaining unaltered.
3. Describe the principle of the Lever, and show how it has been utilized in the construction of a balance. Explain why by means of a crowbar and a block of wood a workman is able to move a heavy log.
4. A body placed in one scalepan of a false balance appears to weigh 10 lbs.; when placed in the other it weighs 12½ lbs. If the longer arm of the balance be 11 inches in length, find the length of the shorter arm, and the true weight of the body.
5. Distinguish between absolute and relative density, and prove that the former depends on the units of length and mass, while the latter does not. Show also that on the metric system, the two densities are expressed by the same number.
6. Describe, with sketches of the appliances used, any two methods of measuring the density of any liquid relative to water.
7. Describe the construction and use of a barometer. How does the length of the column of mercury in a barometer

change with the altitude above the sea-level? Give reasons for your answer.

8. What are the fix points of a thermometer? Describe carefully how they are determined.

9. How would you convert a Fahrenheit into a Centigrade temperature?

Find graphically or otherwise the temperature at which the Fahrenheit and the Centigrade thermometers give the same reading.

## SECOND PAPER.

### Chemistry.

I. Give some of the properties which are possessed by all kinds of matter and explain in your own words what is meant by a property.

II. What is meant by the Imperial Standard Yard? Compare its length with that of a metre.

Express 6 inches, 1.25 feet, and 2.6 yards, both in metres, and in millimetres.

III. Define mass and weight of a material body, carefully distinguishing between the terms. Describe with a sketch an instrument for determining the mass of a material body and explain how it is used.

IV. Multiply 10.4 square centimetres by 15.5 decimetres and state the result both in cubic centimetres and in litres. If the volume in question were filled with water at  $4^{\circ}\text{C}$ , what would the weight of the water be?

Express  $55^{\circ}\text{F}$ . in degrees centigrade and  $15^{\circ}\text{C}$  in degrees Fahrenheit.

V. Describe fully how you would determine the density of mercury. A test tube weighted with sand is placed in a graduated jar, and displaces 26 c.c. of water, 32 c.c. of alcohol, 21 c.c. of glycerine, and 14 c.c. of sulphuric acid. Find the specific gravities of the three given liquids.

VI. Give a list of as many things as you can which will dissolve in spirits of wine and carbon disulphide but not in water. What do you mean by a saturated solution? How would you prepare a saturated solution at a given temperature? What is generally the effect of cooling a saturated solution?

A white powder is shaken up with water. How would you ascertain whether any of it dissolves?

VII. What is a crystal? How would you show that crystals of soda contain water? What is the water called? What is the use of this water?

Powdered glass and salt are stirred up in a bottle containing water in which some gas is dissolved. What methods would you use to recover the glass, salt and gas from the water?

VIII. Define the terms Efflorescent, Deliquescent, and Decrepitation. Explain how you would make some crystals of sulphur.

State several actions you have been shown in which matter apparently disappears, and explain what reason you have for supposing that what has disappeared is still in existence, although no longer visible.

IX. What amount of white residue can be got by dissolving 10 grammes of Calcium Carbonate in Hydrochloric Acid and evaporating the Solution obtained? What is the name of the residue?

### URDU.—FIRST PAPER.

1. Give the meaning of the following:—

مورد آلام — پروان چڑھنا — شب مشک ریز — سنگ  
 غم فرقت — انداز گل افشانی گفتار — انشاء اردو کا  
 دستور العمل — سنگ لاخ زمینی — چرخ سفلہ نواز —  
 قوت کهربائی — هوتی ترکی تھام خانوں کی \*

2. Explain the *allusions* contained in the following verses :—

- (a) بیتوں کی طرح چاہتے تھیں بیٹیوں کو اب  
جو لوگ روا رکھتے تھے خونریزی دختر  
(b) معلوم ہے جو سوروں پہ اسپین میں گذری  
جسوقت از بلا ہوئی وہاں صاحب افسر  
(c) سامری فن بھی عدو ہو تو نہو اوسکا گذر  
چوب دربانہیں ہے موسیٰ کے عصا کے عالم  
(d) جب ملا رامچندر کو بن بن بناس  
اور نکلا وطن سے ہو کے اداس  
گذرے غربت میں اسقدر مہ و سال  
پر نہ بےولا اجدہیا کا خیال

2. Explain the following passages fully, connecting each passage with its context\* and paying special attention to underlined words and expressions :—

- (a) اس باغ کے دیکھنے سے بہشت بریں کا نقشہ آدکھوں  
کے سامنے پیر جاتا ہے - ہر درخت اسکا رشک قامت یار  
اور ہر گل اسکا غیرت گل رخسار - اس کی سہن کے آگے  
بنا گوش یار خجل اور اوسکے بنفشہ کے سامنے زلف خوبان  
منفعل - روش میں نہر ہی کا پانی آتا ہے اور گلہاے  
مطرا اور درختان دلکش کی تازگی کا باعث ہوتا ہے \*  
(b) گلزار کو دیکھکر لعل انگاروں پر لوتتا ہے - سبزے  
کے رشک سے زرد زھر کھاتا ہے \*

- (c) غرض ہر چند کہ تخلص انکا میو تھا مگر گنجفہ  
سخن کی بازی میں آفتاب ہوکر چمکے - قدر دانی نے انکے  
کلام کو جواہر اور موتیوں کی نگاہوں سے دیکھا اور نام  
کو پھولوں کی مہک بناکر آریا ہندوستان میں پہہ بات

انہیں کو نصیب ہوتی کہ مسافر غزلوں کو تحفہ کے طور پر شہر سے شہر میں لے جاتے تھے \*

(d) وہ آفتاب تھا جو چمکتا جہاں پر  
 بیٹھا تھا سکہ جسکا زمین و آسمان پر  
 کھولے ہوئے شغی کا نشان رزق برق سے  
 رکھ کر کرن کا تاج نکلتا تھا شوق سے  
 اسکے عمل کو توڑنا تیرا ہی کام ہے  
 سکھ ہے اب ستاروں کا اور تیرا نام ہے  
 محنت ٹھہر تھا اسکا تو راحت ہے پھل ترا  
 چاندی تھا اسکا حکم تو سونا عمل ترا

(e) فہ چھوڑے نکمت باد بہاری راہ اپنی  
 تجھے اتھکھیلیاں سوجھی ہے ہم بیزار بیٹھے ہیں  
 بسان نقش پہاے رھرواں کوے تھنا میں  
 فہیں اُٹھنے کی طاقت کیا کریں لاچار بیٹھے ہیں  
 یہہ اپنی چال ہے اُفتادگی سے اب کہ پہروں تک  
 نظر آیا جہاں پر سایہ دیوار بیٹھے ہیں  
 کیا بود و باش پوچھو ہو پورب کے ساکنوں (f)

ہمکو غریب جان کے ہنس ہنس پکار کے  
 دلی جو ایک شہر تھا عالم میں انتخاب  
 رہتے تھے منتخب ہی جہاں روزگار کے  
 اُسکو فلک نے لوت کے ویزان کر دیا  
 ہم رہنے والے ہیں اُسی اُجڑے دیار کے

Who were the authors of extracts (e) and (f) and on what occasions were the poems referred to composed ?

\* By "context" is meant a brief expression of such parts of the text preceding and succeeding the passage set as are useful to an adequate understanding of it.



4. Define and illustrate:—

مشار الیہ - مذکر حقیقی - فعل مجہول  
مربک امتزاجی - تابع مجہول

5. Give the genders of the following nouns:—

سیر - دہی - پلنگ - قلم - بلبل

## SECOND PAPER.

1. Translate into Urdu:—

Shylock, the Jew, lived at Venice: he was an usurer, who had amassed an immense fortune by lending money at great interest to Christian merchants. Shylock, being a hard-hearted man, exacted the payment of the money he lent with such severity, that he was much disliked by all good men, and particularly by Antonio, a young merchant of Venice; and Shylock as much hated Antonio, because he used to lend money to people in distress, and would never take any interest for the money he lent; therefore there was great enmity between this covetous Jew and the generous merchant Antonio. Whenever Antonio met Shylock on Rialto (or Exchange), he used to reproach him with his usuries and hard dealings, which the Jew would bear with seeming patience, while he secretly meditated revenge.

2. Write out in simpler Urdu the following passage, changing the underlined parts:—

آزاد ہندی نہاد کے بزرگ فارسی کو اپنی تیخ زبان کا

جوہر جانتے تھے مگر تذبذباً سو برس سے کل خاندان کی  
زبان اردو ہے - بزرگوں سے لیکر آج تک زبانوں کی تحقیقات  
میں کمال سرگرمی اور جستجو رہی - اب چند سال سے  
معلوم ہوتا ہے اس ملک کی زبان ترقی کے قدم برابر آگے

بڑھا رہی ہے یہاں تک کہ علمی زبانوں کے عمل میں دخل

پیدا کر لیا اور عنقریب بارگاہ علم میں کسی درجہ خاص

کی کرسی پر جاوس کیا چاہتی ہے ایک دن اسی خیال میں تھا اور دیکھہ رہا تھا کہ کس طرح قدم بقدم آگے بڑھی۔ کس طرح عہد بچہ اس درجہ تک پہونچی۔ تعجب ہوا کہ ایک بچہ شاہجہانی بازار میں پھرتا ملے۔ شعرا اُسے اُتھا لیں اور ملک سخن میں پالکر پرورش کریں انجام کو یہاں تک نوبت پہونچے کہ وہی ملک کی تصنیف و تالیف پر قابض ہو جائے \*

3. Explain the following couplets:—

- (1) دوست غمخواری میں میرے سعی فرمائینگے کیا  
زخم کے بھرنے تاک ناخن نہ برے جائینگے کیا
- (2) جان دے دی ہوئی اُسی کی تھی  
حق تو یہ ہے کہ حق ادا نہ ہوا
- (3) درم و دام اپنے پاس کہاں  
چیل کے گھونسلے میں ماس کہاں
- (4) لاٹھی حیات آئی قضا لے چلی چلے  
اپنی خوشی نہ آئے نہ اپنی خوشی چلے
- (5) یہہ چپ نہ لگائے کسی دشمن کو بھی اللہ  
یہہ چپ نہیں مرجانے کی ہے دل کی نشانی

4. Explain the use of the following idioms:—

- (1) حلوائی کی دوکان اور دادا جی کا فاتحہ
- (2) اونچی دوکان پھیکا پکوان
- (3) رسی جل گئی مگر بل نہیں گیا
- (4) اپنی گلی میں کتا بھی شیر ہے

5. Write an essay in Urdu, not covering more than two pages of the answer-book, on the following proverb:—

'Early to bed, and early to rise, makes a man healthy, wealthy and wise.'

## HINDI.—FIRST PAPER.

1. Render the following into plain prose (Hindi):—

सब विधि गुरु प्रसन्न जिय जानी। बोलेउ राउ रहसि सृदुबानी ॥  
 नाथ रामु करियहि जुवराजु। कहिय कृपा करि करिय समाजु ॥  
 मोहि अछत यहु होइ उछाहू। लहहिं लोग सब लोचन लाहू ॥  
 प्रभु प्रसाद सिव सबइ निवाही। यह लालसा एक मन माहीं ॥  
 पुनि न सोच तनु रहउ कि जाऊ। जेहि न होइ पाछे पछिताऊ ॥  
 सुनि मुनि दसरथ बचन सुहाये। संगल मोद मूल मन भाये ॥  
 सुनु नृप नासु विमुख पछिताहीं। नासु भजन बिनु जरनि न जाहीं ॥  
 भयउ तुम्हार तनय सोइ स्वासी। रामु पुनीत प्रेम अनुगामी ॥

बेगि बिलंबु न करिय नृप, साजिय सबुइ समाज ।

सुदिन सुमंगलु तबहिं जब, रामु होहिं जुवराजु ॥

(a) Define *samasa*. Give examples of the different kinds of *samasa*s. Pick out the compounds in the preceding extracts and expound them.

(b) Give the originals of these apabhramsa forms जुवराजु, उछाहू, लाहू and पछिताऊ. Parse नाथ, कहिय, सुहाये and भाये.

2. Fully explain the following in Hindi:—

सादर पुनि पुनि पूछति जोही। सबरी गान मृगी जनु मोही ॥  
 तसि मति फिरी अहई जसि भाखी। रहसी चेरि घात जनु फाखी ॥  
 तुम पूछहु मैं कहत डराऊं। धरेउ सोर घर फोरी नाऊं ॥  
 सजि प्रतीति बहुविधि गढि खोली। अवधसाढसातीतव बोली ॥  
 प्रिय सिय रामु कहा तुम रानी। रामहिं तुम्हप्रिय सो फुरिबानी ॥  
 रहा प्रथम अब ते दिन बीते। समउ फिरे रिपु होहिं पिरीते ॥  
 भानु कमल कुल पीष निहारा। बिनु जर जारि करइ सोइ खारा ॥  
 जर तुम्हारि चह सबति उखारी। रूंधहुं करि उपाउ बरबारी ॥

तुम्हहिं न सोचु सोहाग बल निजबस जानहुं राव ।  
मन मलीन मुहु मोठ नृप रावर सरल सुभाऊ ॥

(a) Explain the similes in lines 1 and 2 of the preceding extracts.

(b) What is साढसाती? What effect did it produce on अवध?

3. Translate the following extracts into English :—

(a) रवि पचि कोटिक कुटिलपन कीन्हैसि कपट प्रबोधु ।  
कहेसि कथा सत सवति कै जेहि बिधि बाढ़ बिरोधु ॥

(b) कद्रू बिनतहि दीन्ह दुख तुम्हहिं कौसिला देव ।  
भरतु बंदिगृह सेइहहिं लबनु राम के नेव ॥

(c) सांझ समय सानंद नृप गयउ कैकई गेह ।  
गवनु निठुरता निकट किय जनु धरि देह सनेह ॥

(d) बार बार कह राव सुमुखि सुलोचनि पिकबचनि ।  
कारन मोहि सुनाउ गजगामिनि निज कोप कर ॥

(e) सांगु सांगु पै कहहु पिय कबहुं न देहु न लेहु ।  
देन कहेहु बरदान दुइ तेउ पावत संदेहु ॥

(1) Explain the allusions in extracts (a) and (b).

(2) 'बरदान दुइ'—Name these.

4. Explain :—

शोचनीय नहिं कौसलराऊ । भुवनचारिदस प्रगट प्रभाऊ ॥

(a) Give the names of 'भुवनचारिदस.'

(b) Mention those who have been enumerated by Tulsidas as "शोचनीय" and quote his lines if you can?

5. Give the original forms and synonyms of the following words :—

सरिस, आयसु, स्तुतिपंथ, दोष, बांझा, सरसु, बरबसम,  
भुआल, अभियरहित, धीरज, खोस, खवन.

## SECOND PAPER.

1. Describe the character of Chanakya in Hindi and enumerate the causes which led him to play the part he is assigned in the Mudrārākshasa.

2. Explain fully the following extracts in Hindi :—

(a) काल सर्पिणी नन्दकुल, क्रोध धूम सी जिन ।  
अबहू बांधन देत नहिं, अहो शिखा सम कौन ॥

(b) जदपि हात सुन्दर कमल, उलटो तदपि सुभाव ।  
जो नित पूरन चन्द सो, करत विरोध वनाव ॥

(c) राक्षस अपने स्वामी की स्थिर भक्ति से और यहां के बहुत दिन के रहने से यहां के लोगों का, सब नन्द के साथियों का विश्वासपात्र हो रहा है और उसका स्वभाव सब लोग जान गए हैं और उसमें बुद्धि और पौरुष भी है वैसे ही उस के सहायक भी हैं और कोपबल भी है । इससे जो वह यहां रहै तो भीतर के सब लोगों को छोड़ कर उपद्रव करै और जो यहां से दूर रहै तो वह ऊपरी जोड़ तोड़ लगावै पर उनके मिटाने में इतनी कठिनाई न हो, इससे उसकी जाने के समय उपेक्षा कर दी गई ॥

(d) नहिं शस्त्र को यह काल यासों भीत जीवन जाइ है ।  
जो नीति सोचै या समय तो व्यर्थ समय नसाइ है ॥  
चुप रहनहू नहिं जोग जब समहित विपतिचन्दनपरघौ  
तासों बचावन प्रियहिं अब हम देइ निज विक्रय करघौ

3. सरद विपल ऋतु सोहई, निरमल नील अकास ।  
निसानाथ परन उदित, सोलह कला प्रकास ॥  
चारु चमेली बन रही, सँह सँह सँहक सुवास ।  
नदी तीर फूले लखौ, सेत सेत बहु कास ॥

कमल कमोदनि सरन में, फूले सोभा देत ।  
भौर सृन्द जापै लखौ, गूंजि गूंजि रम लेत ॥  
बसन चांदनी चन्द मुख, उडुगन सोती माल ।  
कास फूल मधु हास यह, सरद किधौ नव बाल ॥

- (a) Translate the above extract into English.  
(b) What do you understand by the सोलह कला of निसानाथ ?  
(c) What is the force of the words सेत सेत in line 4 of the above extract ?  
(d) Clear the figure in the last two lines of the above extract and write the same in simple prose.

4. (i) दूजे के हित प्राण दै, करै धर्म प्रतिपाल ।  
को ऐसी शिव के बिना, दूजो है यह काल ॥

(ii) जदपि उदित कुमुदिन सहित, पाइ चांदनी चन्द ।  
तदपि न तुम बिन लसत है, नृपससि जगदानन्द ॥

- (a) Explain the allusions contained in the above verses.  
(b) Give the context of verse (ii).

5. Give the prose order of the following verses :—

निज प्रभु सों करि नेह जे, भृत्य समर्पत देह ।  
तिन सों अपुने सुत सरिस, सदा निबाहत नेह ॥  
ते गुण ग्राहक नृप सबै, जिन मारै छन माहिं ।  
ताही बिधि को देस यह, औरन को कछु नाहिं ॥  
उतै भँवर को शब्द इत, भँयर करत गुंजार ।

निज सम तेहि लखि नासि है, दंतन तोरि कछार ॥

6. Give the meanings of the following words and expound the *samasas* of the first three of them :—

कौमुदी-महोत्सव, शुभाकांक्षी, शिष्टाचार, अन्तरंगी-  
मन्त्री निराकरण ।

7. Translate the following extract into simple Hindi :—

After this interview with the king, Ratipal hastened to see Rainmalla, and there, as if to oblige and save from utter destruction an old comrade and associate, informed him that, for some unknown reason, the king's mind was greatly prejudiced against him, and he advised him to go over to the enemy on the first alarm; for he said Hammir had resolved to make him a prisoner that very night. He also told him the hour at which he might expect to be visited by the king for this purpose. Having done this, Ratipal quietly waited to see the issue of the mischief he had so industriously sown.

### AGRICULTURE.

1. Explain the principle on which it has been recommended that a cereal crop should be grown after a leguminous crop.

2. Describe a method of preserving cattle dung for manure.

3. Assuming that farmyard manure is not available what other manures will you apply to :

(a) A sandy soil for growing barley ?

(b) A heavy clay for growing peas ?

Give your reasons.

4. What is meant by "industrial crops" ? Name one of such crops and give a brief account of its cultivation and the harvest.

5. What are the salient points of a bull fit for breeding purposes.

6. Describe the treatment of a cow for a fortnight after calving.

7. Name and describe the constituents of milk; and state briefly the method of making butter from it, explaining the changes which take place in the process of manufacture.

8. What are the objects of :—

(1) Clod-crushing ;

(2) Harrowing;

(3) Irrigation?

### DRAWING.

1. Construct the following angles by set squares :— $75^\circ$ ,  $105^\circ$ ,  $120^\circ$ ,  $150^\circ$ , and  $255^\circ$ , and bisect any one of these by a set square.

2. Construct a diagonal scale of a yard to an inch to read yards, feet and inches; and mark on it 4 yards, 2 feet and 9 inches.

3. The perimeter of a triangle is 12 inches and two of its angles are  $60^\circ$  and  $30^\circ$ ; construct it and find its area.

4. The distance between the centres of two circles having 2 inches and 1 inch radius respectively is 4 inches; draw a common exterior as well as an interior tangent to the circles.

5. Describe the methods of constructing a square having (1) twice the area of a given square; (2) half the area of a given square; and (3) equal to three given squares.

### DRAWING.

Draw a freehand sketch of the models on the table in front of you.

Show the nearest edge of the table.

*The sketch must be not less than six inches high, and all lines must be drawn, not ruled.*

### GEOGRAPHY.

Answers to Parts I and II to be written in separate answer books marked I and II respectively.

#### I.

1. Define the terms Latitude and Longitude and state how each is measured. Show that in order to give the position of a place we must state its latitude and longitude.



2. Explain clearly how eclipses of the sun and moon are caused. Illustrate your remarks by means of a diagram or diagrams.

3. What are volcanoes, and how are they formed? Give reasons for supposing that earthquakes and volcanoes are of similar origin.

4. Draw a map of Africa, carefully bringing out those features of its physical aspect which have rendered Africa the most isolated and inaccessible of all the continents.

5. What and where are the following? Mention any circumstance of interest connected with each that may be known to you :—Dardanelles, Tunis, Spitzbergen, Quebec, Stromboli, Sarawak, the Levant, Uganda, La Rochelle, and Sebastopol.

## II.

6. What do you understand by the Relief of a country? Into what regions may India be divided in point of relief?

7. What particulars must be known before we can find out the climate of any place in India? Illustrate your answer by reference to any one of the principal towns of India.

8. Account for the variety in the distribution of rainfall in India. Give a full account of the monsoons.

9. Write out a list of the principal products of India, excluding food-stuffs, and name the places where each is chiefly grown.

10. What and where are the following :—Yanaon, the Pennan Jaisalmir, Pudukota, the Karakonams, the Bhor Ghat, Chandbali, Dharmasala, the Northern Circars, and Hazaribagh?

## MATRICULATION EXAMINATION, 1909.

### ENGLISH.—FIRST PAPER.

#### Prose.

[*Note carefully the different sections A, B, C, and write your answers in the proper books provided for them.*]

#### Section A.

1. *Either (a) If good men are playing, the quickness of the returns is marvellous; you hear the rattle like that*

a boy makes drawing his stick along *palings*, only *heavier*, and the closeness of the *men in action* to one another, gives it a *strange* interest and makes a *spell* at back-swording a very noble sight.

Explain the portions in italics.

What is back-swording?

Parse—marvellous, like, along, sight.

Or (b) His *personal character* and influence had not had time to *make itself felt*, except by a very few of the bigger boys with whom he came more directly into contact; and he was looked upon with great fear and dislike by the great majority even of *his own house*, for he had found the school and school-house in a state of monstrous *license and misrule*, and was still employed in the necessary but *unpopular work* of *setting up order* with a strong hand.

Explain the portions in italics.

To whom does this passage refer? Describe briefly his personal character.

Parse—had had, felt, work.

2. It was a fine November morning, and the *close* soon became *alive with boys* of all ages, who *sauntered about* on the grass, or walked round the *gravel walk*, in parties of two or three. East, still *doing the cicerone*, pointed out all the *remarkable characters* to Tom as they passed.

Explain the portions in italics.

Mention two of the 'characters' and state why they were 'remarkable.'

## Section B.

3. So they *reconnoitred* the walls carefully, borrowed a coal-hammer from old Stumps, bought some big nails, and after one or two attempts, *scaled the school*, and *possessed themselves* of huge quantities of *fives-balls*. The place pleased them so much that they spent all their *spare time* there, scratching and cutting their names on the top of every tower; and at last, *having exhausted all other places*, finished up with inscribing H. East, T. Brown, on

the minute-hand of the great clock, in the doing of which they held the minute-hand, and *disturbed the clock's economy*.

Explain the portions in italics.

How were East and Tom discovered, and how were they punished?

Parse—doing.

4. *Keep the latter before you as your one object*, and you will be right whether you *make a living* or not; but if you *dwell on the other*, you'll very likely *drop into mere money-making*, and *let the world take care of itself for good or evil*. Don't be in a hurry about finding your work in the world for yourself—you are not old enough to judge for yourself yet—but just *look about you in the place you find yourself in* and try to make *things* a little better and *honester* there.

Explain the portions in italics.

Convert the first sentence 'Keep . . . evil' into the indirect form of narration.

### Section C.

5. We need *throughout the march of life* every detail of *preparation* that is *brought within our reach* during our school and training days. He who *fails to use his opportunities* to make ready in every possible way for the *calling* he is to pursue is *preparing mortification for himself* in the days when in the stress of life's duty he finds himself *wanting*. A lesson missed in boyhood is a chance for disaster in after years. A whole curriculum missed is preparation for a career of inefficiency and dishonour. *It is fatal to chuckle over getting through examinations without proper preparation*. The man who does the chuckling is to be pitied, not congratulated. A true education can be got only by *paying the full price*. That which is worth striving for can be got only by patient and persistent application.

Explain the portions in italics.

Analyse the second sentence; i, e., 'He who fails . . . wanting.'

6. Railway can go, *thanks to the skill* of the modern engineer, into *any corner of the earth* where there is *traffic sufficient to make them pay*. Hence their creation opened out numerous corners of Great Britain which *physical difficulties* had hitherto kept in *seclusion and poverty*. Wherever coal and iron existed, they could now be utilized. Wherever manufactures are produced, they can easily be conveyed to the *centres of home consumption* or to the seaports which send them to foreign lands. Not the least *important side of railway extension* was that it made possible the *easy transfer of labour* from place to place.

Explain the portions in italics.

Give in your own words a brief account (not more than fifteen lines) of the part played by railways in developing the resources of India.

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## ENGLISH.—SECOND PAPER.

### Poetry.

[*Note carefully the different sections D, E, F, and write your answers in the proper books provided for them.*]

### Section D.

1. Explain clearly in your own words the meaning of the following extracts : refer briefly to the context of each, and parse the italicized words.

- (a) Colder and louder blew the wind,  
A gale from the north-east ;  
The snow fell hissing in the brine  
And the billows *frothed* like yeast.
- (b) Fear no more the frown of the great,  
Thou art past the tyrant's stroke ;  
Care no more to clothe and eat  
To thee the reed is *as the oak*.
- (c) The sceptre, learning, physic, must  
All follow this, and come to dust.  
Our outward life requires them not :  
Then wherefore had they birth ?

To minister delight to man,  
To beautify the earth.

- (d) The deep affections of the breast  
That Heaven to living things imparts  
Are not exclusively *possessed*  
By human hearts.

### Section E.

2. Give the plain meaning of the following passages ; and explain the grammatical construction of the parts italicized, and supply any words omitted or understood :—

- (a) And parted thus they rest, who played  
Beneath the same green tree ;  
Whose voices mingled as they prayed  
Around offe parent knee.  
They that with smiles lit up the hall,  
And cheered with song the hearth—  
*Alas for love, if thou wert all,*  
*And naught beyond, O earth !*

- (b) Full fathom five thy father lies :  
*Of his bones are coral made :*  
These are pearls that were his eyes :  
Nothing of him that doth fade,  
But doth suffer a sea change  
Into something new and strange.

3. Analyse in tabular form :

Try as I like to find the way,  
I never can get back by day,  
Nor can remember plain and clear  
The curious music that I hear.

4. Give the substance of the poem *About Ben Adhem and the Angel*.

### Section F.

5. Considerable as are the disadvantages which persons have to contend with who begin their acquaintance with books, only late in life, it ought not to be forgotten, on the other hand, that *all the chances of the race are not against them*. The thought of the time they have lost and are anxious to redeem is itself a *stimulus* that will *make up for many disadvantages*. Then, although they have not yet learned much from books, they have

nevertheless learned of necessity a great deal from *other sources*; and *they come to their studies*, too, with faculties which, if not quite so *pliant as those of childhood*, have much more vigour and comprehension.

(a) Give, in your own words, the substance of the above passage; and explain the portions in italics.

(b) Analyse the concluding sentence:—‘Then, although . . . comprehension.’

(c) Explain the grammatical construction of ‘considerable as are the disadvantages’: ‘is itself a stimulus’: ‘if not quite so pliant as those of childhood.’ And parse the words *only*, *itself*, *of necessity*.

### THIRD PAPER.

#### English Essay.

Write an essay on either of the following subjects:—

(1) Union is strength.

(2) ‘Errors, like straws, upon the surface flow,  
He who would search for pearls, must dive below.’

### THIRD PAPER.

#### URDU.

(N.B.—Write the answers to the different sections in separate answer books.)

G.

Translate into English:—

انگریز مسافروں نے کشمیر کے پہاڑوں پر سیر کر کے یہاں کی خوبصورتی کا اسطرح بیان کیا ہے کہ شاید ایسی تصویر خوبصورت فطرت کی دنیا میں اور کہیں نہیں ہے۔ آب و ہوا اور فطرت (Nature) کی خوش آئندگی اور جن کہانی کی چیزوں سے بدن میں طاقت اور دلہیں خوشی پیدا ہوتی ہے۔ ان سب بواعث سے کشمیر دنیا میں فردوس کر کے مشہور ہے۔ جب ایام بہار شروع ہوئے اور برف پگھلنے لگا تب تو

فطرت کی خوبصورتی اوبل پڑتی ہے۔ جاتوں کی برت سے تھکے ہوئے درخت وغیرہ اپنے برت کے اوتار کو چھوڑ کر پھولونکی کلیونسے آراستہ ہونے لگتے ہیں۔ جدھر انکھ پھیرو اودھر ہی دیکھو گے کہ درخت اور بیل پھولونکے زیورات سے تھکے ہیں۔ کشمیر ہر رنگ کے خوشبودار اور خوش آئند پھولونسے بھرپور ہے۔ سیب انگور وغیرہ ہر قسم کے لذیذ میوے پیدا ہوتے ہیں۔ انگور اتھارہ اقسام کے اتنے کثیر اور نہایت ذائقہ دار ہوتے ہیں کہ کشمیری اپنی شیشی سے کہا کرتے ہیں کہ اگر ہم خدا کو کھلانے پاتے تو یہاں کے انگور کھلا کر اوسکا دل بھر دیتے۔

H.

کوہ نور دنیا میں نامور اور تواریخ میں ایک مشہور ہیرا ہے۔ یہہ بڑا اور چمکیلا ہیرا کتنے مدت سے ملا ہے۔ یہہ کوئی نہیں کہہ سکتا۔ کوئی کہتا ہے کہ قریب پانچ ہزار برس کے پہلے مسولی پتن کے پاس گوداوری ندی میں یہہ ہیرا ملا تھا۔ اور کوئی یہہ کہتا ہے کہ یہہ وہی ہیرا ہے جسکو کرشن جی پہنتے تھے اور جسکا نام سیام ناتھ تھا۔ دوسروں کی رائے یہہ ہے کہ اوجین کے راجہ وکرماٹ کا تھا۔ مسلمانوں کی تواریخ سے معلوم ہوتا ہے کہ یہہ ہیرا پہلے زمانہ میں مالوا کے ہندو راجاؤں کے پاس رہا کیا۔ علاؤالدین خلجی نے جب مالوا اپنے تحت کر لیا تب یہہ ہیرا اوسکے پاس آیا۔ مثل بادشاہ بابر نے اپنی سوانح عہری میں لکھا ہے کہ اوسکے بیٹے ہمایوں کو گوالیار کے راجہ وکرماجیت سے یہہ جواہر ملا تھا۔ بعد کو جب فارس کے بادشاہ نادر شاہ نے دہلی کا دخل کیا تب اوسنے مغل بادشاہ محمد شاہ سے اسکو حاصل کیا اور اسکا نام کوہ نور رکھا۔ اسکے بعد کابل کے بادشاہ کے ہاتھ یہہ ہیرا لگا اور اوسکے

ہیبتے شاہ شجاع سے مہاراجہ رنجیت سنگھ کو ملا - جب پنجاب کا راج سکھوں کے ہاتھ سے فکڑ گیا تب سے یہہ ہیروا ملکہ ہندو وکٹوریا کے تاج شاہی میں چھکا - اس مول کا ہیرو دنیا میں اور کوئی نہیں ہے

## HINDI.

(N. B.—Write the answers to the different sections in separate answer books.)

### G.

Translate into English :—

अंग्रेज सुसाफ़िरो ने कश्मीर के पहाड़ों पर सैर कर के यहां की शोभा का इस तरह वर्णन किया है कि शायद वैसी भगवान की रचना की शोभा दुनिया में और कहीं नहीं है। आब हवा और प्रकृति (Nature) की शोभा और जिन भोजन के पदार्थों से शरीर में बल और मन में आनन्द उत्पन्न होता है उन सब चीजों के कारण कश्मीर पृथ्वी पर स्वर्ग के प्रसिद्ध है। जब वसन्त ऋतु का आरम्भ हुआ और बरफ पिघलने लगा तब तो प्रकृति की शोभा अबल पड़ती है। जाड़ों के बरफ से ढके हुए पेड़ पालों बरफ के ओढन की छोड़ कर फूलों की कलियों से शोभित हो ने लगते हैं। जिधर आंख फेरी उधर ही देखोने वृक्ष और लता पुष्पों के आभूषण से ढके हैं। कश्मीर नाना वर्ण के सुगन्ध और मनोहर पुष्पों से भरा पूरा है। सेब, अंगूर इत्यादि नाना प्रकार के स्वादिष्ट फल उत्पन्न होते हैं अठारह प्रकार के इतना अधिक और स्वादिष्ट अंगूर होता है कि कश्मीरी बड़े गर्व से कहा करते हैं कि अगर हम भगवान को खिलाने पाते तो यहां के अंगूरों को खिलाकर उनको तृप्त कर देते ॥



कोहिनूर दुनियां में प्रसिद्ध और इतिहास में वर्णित एक हीरा है । यह बड़ा और चमकीला हीरा कितनी मुद्दत से मिला है यह कोई नहीं कह सकता । कोई कहता है कि करीब पांच हजार वर्ष के पहले समुलिपत्तन के पास गोदावरी नदी में यह हीरा मिला था । और कोई कहता है कि यह यही मणि है जो कृष्ण जी धारण करते थे और जिस का नाम अ्यामन्तक था । दूसरों की राय यह है कि यह उज्जैन के राजा विक्रमादित्य का था । मुसलमानों के तवारीख से मालूम होना है कि यह हीरा पहले जमाने में मालवा के हिन्दू राजाओं के पास रहा । अलाउद्दीन खिलजी ने जब मालवा अपने अधीन कर लिया तब यह हीरा उसके हाथ आया । मोगल बादशाह बाबर ने अपने जीवनवृत्तान्त में लिखा है कि उस के बेटे हुमायूँ को ग्वालियर के राजा विक्रमाजीत से यह हीरा मिला था । बाद जब फारस के बादशाह नादिरशाह ने दिल्ली को दखल किया था तब उसने मोगल बादशाह मुहम्मदशाह से इसको पाया । और इसका नाम कोहिनूर रक्खा । उसके बाद काबुल के बादशाह अहमदशाह के हाथ यह हीरा लगा और उसके बेटे शाहशुजा ने महाराज रणजीत सिंह को मिला । जब पंजाब का राज्य सिखों के हाथ से निकल गया तब से यह हीरा भारतेश्वरी चिकुरिया के राजमुकुट में घिराजने लगा । इस मोल का हीरा दुनियां में और कोई नहीं है ॥

# MATHEMATICS.

## FIRST PAPER.

### Arithmetic and Algebra.

1. A metre = 39.3708 inches. Express .325 of a metre as a decimal of a yard (to six figures).

2. What will be the gain per cent. if mangoes bought at the rate of six for 5 as. are sold at the rate of five for 6 as.?

3. In the first four months of 1906 the Indian Government sold Bills amounting to Rs. 97,984,311, obtaining £6,537,578 in exchange. Find the value of a rupee in English money to the nearest tenth of a penny.

*N.B.*—Use no more figures than are necessary to obtain a result to the degree of accuracy indicated.

4. A holder of Rs. 5,500 of  $3\frac{1}{2}\%$  Government paper sells at  $91\frac{1}{4}$  and invests in  $4\%$  stock at 101. If the brokerage is  $\frac{1}{8}$  for the first and  $\frac{1}{4}$  for the second, find the change in his income.

5. Find the G.C.M. of

$$21x^2 - 28x^2 - 46x + 7 \text{ and } 21x^2 - 58x + 21.$$

6. The sum of two numbers is 4225 and their G.C.M. is 845. Show that there are two pairs of numbers satisfying these conditions, and find them.

7. Simplify :

$$\left(1 + \frac{2a}{z^2} \right) \left(1 + \frac{3a}{z^2} \right) \left(1 + \left(\frac{a}{z-2a}\right)1 - \frac{a}{z+2a}\right) \\ \frac{-a}{a} \quad \frac{-+a}{a}$$

8. Solve the equations :

$$(1) \quad \frac{7-3x}{5} = \frac{14-5x}{3} + \frac{25-4x}{9}.$$

$$(2) \quad x^3 = 7xa^2 - 6a^3.$$

9. An ordinary train, the average speed of which is 20 miles an hour less than that of the express, takes two hours longer than the express to go 150 miles. What is the average speed of each train?

10. To what number must 1, 5, and 13 be severally added so that they may be a continued proportion?

11. Obtain by means of a graph the square root of five.

## SECOND PAPER.

### Geometry.

[Only FOUR questions from PART I and FOUR questions from PART II to be attempted.]

#### PART I.—*Practical Geometry.*

*Proofs of constructions are not to be given, but construction lines must be shown in all cases.]*

1. Construct a triangle having one side (not the base)  $1 = 2.4$  in.: and the base angles  $= 71^\circ$  and  $49^\circ$  respectively. Draw the altitude. Measure the base and altitude, and calculate the area of the triangle as accurately as you can.

2. Construct two squares whose diagonals measure 1.7 in. and 1.3 in. respectively, and then construct a third square equal in area to their sum. Measure a side of the third square to the nearest hundredth of an inch, and write down your result.

3. Describe a circle of radius 0.7 in., and then describe two other circles of radii 0.8 in. and 0.6 in. respectively, touching the first circle but having their centres 2 inches apart.

4. The accompanying figure is the plan of a field drawn to the scale of 220 yards to the inch.

Make an exact copy of it, and find the area of the field to the nearest acre.

5. About a circle of radius 1.1 in. circumscribe a regular hexagon. Measure a side of the hexagon to the nearest hundredth of an inch, and write down your result.

### PART II.—*Theoretical Geometry.*

6. Prove that if a straight line cuts two parallel straight lines, the alternate angles are equal.

If an external bisector of an angle of a triangle is parallel to the opposite side of the triangle, prove that the triangle is isosceles.

7. Illustrate and explain by means of a diagram the geometrical theorem: 'If a straight line is divided externally at any point, the square on the given line is equal to the sum of the squares on the two segments diminished by twice the rectangle contained by the segments.'

If  $PQ$  is produced to  $R$  so that  $PR \cdot QR = PQ^2$ , prove that  $PR^2 + QR^2 = 3 PQ^2$ .

8. Find the locus of a point which is equidistant from two given straight lines.

How many points are there equidistant from the sides of a given triangle? Illustrate your answer with a diagram.

9. Prove that equal chords in a circle cut off equal arcs.

Prove that an equilateral polygon inscribed in a circle is also equiangular.

10. If the three sides of one triangle are proportional to the three sides of another triangle, prove that the two triangles are equiangular.

From a point  $O$  without a circle a secant  $OPQ$  and a tangent  $OR$  are drawn. Prove that the triangles  $OPR$ ,  $ORQ$  are equiangular, and hence that  $OP \cdot OQ = OR^2$ .

## HISTORY.

[Answers to Parts I and II to be written in separate Answer Books, marked I and II respectively.]

## PART I.

1. 'With the decline of the power of the Empire troubles came upon Britain, as upon all the other Roman provinces.' Give a brief account of the English conquests of Britain up to 577 A. D. Illustrate your answer by a sketch-map.

2. Write short notes on the following:—the Conquest of Wales by Edward I, John Wycliffe, the Puritans, the Restoration.

3. When, and under what circumstances, were (a) Scotland, (b) Ireland, respectively united to the English throne?

4. In what way was England concerned with the war of Spanish succession, and what were the results of that war for England?

5. When, and in what way, did (a) Canada, (b) Australia become parts of the British Empire?

## PART II.

6. Who was Fa Hian? What do we learn from his writings concerning the manners and customs of India in his time?

7. State briefly what you know of Harshvardhan, Balban, Sher Shah, Lord Clive. Give dates in each case.

8. Give a short account of the chief events of the reign of Jehangir.

9. Give some account of the extent of the Mogul Empire under Aurungzebe. Illustrate your answer by a sketch-map.

10. What circumstances led to the passing of the 'Regulating Act?' What was its object, and how did it fail as an instrument of Government?

## ARABIC.

## FIRST PAPER.

1. Rewrite the following with full vowel-marks:—

ثم ان نعبا اعطت العود اسيدها نعبه - و قالت له غي

كنا شعرا - فاختده و اصلحه و اطرب بالانغمات ثم انشد هذه  
الابيات :-

البدر يحكيك لولا انها كلف  
والشمس مثلك لولا الشمس تنكسف  
اني عجبت و كم في الحب من عجب  
فيه الهوم و فيه الوجد و الكلف  
اري الطريق قريباً حين اسلكه  
الى الحبيب بعيداً حين انصرفت

2. Explain the allusions contained in the following :—

(a) فَكَانَ مُوسَى قَدْ أُعِيدَ لَأُمِّهِ

او ثوب يوسف قد اتى يعقوبا

(b) فان تغرر بهزة حين ولى

مع الشهداء محتسباً شهيداً

فانا قد قتلنا يوم بدر

ابا جهل و عتبة و الوليد

3. Name the author of the extract (b) above, and write shortly what you know of him in English.

4. Explain the grammatical reference in the following story :—

جاء نحوي علي باب نحوي فدنق بابه فقال من انت -  
فقال الزائر احمد - فاجاب صاحب الدار انصرت - فقال  
احمد لا ينصرت - فاجاب اذا كان نكرة ينصرت

5. Give the syntactical construction (تركيب) of the following sentences :—

- طَرِبَ طَرِبًا عَظِيمًا - فَأَنْشَدَتْ هَذَيْنِ الْبَيْتَيْنِ  
 إِنَّ الْهَكَامَ اخْلَاقٌ مُطَهَّرَةٌ - شَرُّ الرِّجَالِ الْغَادِرُ

6. (a) Give the original form and the literal sense of the word <sup>سَتِي</sup> used in addressing a lady.

(b) Name the باب-صيغته and مادة of تَنْكَفُ - اَعْطَتْ -  
 مُعْتَسِبٌ and أُعْيِدَ

7. Give singular or plural (as the case may be) of:—

بدر - هوم - طريق - حبيب - شهاداء - أم - معاصي -  
 يوم - لسان -

8. Explain the following grammatical terms and give an example of each:— خبر - مضافي - معطوف - عليه - مضاف

### SECOND PAPER.

Translate into English:—

(a) قَالَ النَّبِيُّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ - أَيَاكُمْ وَالْكَذِبُ -  
 فَإِنَّ الْكَذِبَ (falsehood) يَهْدِي إِلَى الْفُجُورِ (crimes) وَ عَلَيْكُمْ  
 بِالْصِّدْقِ - فَإِنَّ الصِّدْقَ يَهْدِي إِلَى الْبِرِّ (virtue) وَ الْبِرُّ يَهْدِي  
 إِلَى الْجَنَّةِ

(b) قَالَ بَعْضُ الْحُكَمَاءِ مَنْ قُلَّ صَدَقَهُ قُلَّ صَدِيقُهُ (friend)  
 وَقَالَ بَعْضُهُمْ لَوْ صَوَّرَ الصِّدْقَ لَكَانَ أَسَدًا (lion) وَلَوْ صَوَّرَ الْكَذِبَ  
 لَكَانَ ثَعْلَبًا (fox)

(c) اخبر السَّقَطِيَّ قال دخلت الهقابر - فرأيت بهلول<sup>٧٧٧</sup>

المجنون قد ادلي (lowered down) رجله في قبر مغفور (dug up) وهو يلعب بالتراب - فقلت ما تصنع ههنا؟ فقال  
انا عند قوم لا يبرّون جيرانهم (their neighbours) و ان غبت  
عنهم لا يفتابوني (they will not slander me) \*

(d) قيل إن بعض الحكماء لزم باب كسري في حاجته  
دهرا فام ياتفت اليه - فكتب اربعة اسطر في رقعة - و  
دفعها للمعجب \*  
فكان السطر الاول: "الضرورة والامل (hope) اقدما في  
اليك" \*

والسطر الثاني: "القديم (pauper) لا يكون معه الصبر  
عن البطالة" \*  
والسطر الثالث: "الانصراف من غير فائدة شهادة  
الاعداء" \*

والسطر الرابع: أما نعم فثمرته<sup>٨٧٧</sup> (bears fruit) و أما  
لامريحة<sup>٨٧٧</sup> (relieves) \*

(e) دخل لص دار مالك بن دينار في الليل - فطاف

بها - فلم يجد فيها شيئا - فلما هم بالخروج - رفع مالك  
رأسه - وقال يا هذا طلبت الدنيا فيما وجدتتها عندنا -  
فهل لك ان تقبل (attend) علي الآخرة؟ فقال اللص نعم -  
ثم تقدم الي مالك - فتاب علي يديه - فلما طلع الفجر -



اخذ مالاً - ومضي به الي المسجد - فلما رآه التلامذة -  
قالوا المشيخ من هذا الرجل ؟ فقال هذا اص - جاء ليصيدنا  
(f) قيل لها هرب موسي بن عمران من فرعون - وبلغ  
ارض مدين - اخذته الحمى - و قد اصابه الجوع بعد ذلك -  
فشكى الي ربه - فقال يارب انا الغريب وانا المريض -  
وانا الفقير - فاوحى الله تعالى اليه - اما تعرف من الغريب ؟  
ومن المريض ؟ ومن الفقير ؟ الغريب هو الذي ليس له  
مثلي حبيب - والمريض الذي ليس له مثلي طبيب -  
والفقير هو الذي ليس له مثلي وكيل \*

### THIRD PAPER.

1. Translate the following into Arabic and give diacritical marks very carefully :—

- (1) I slept the whole night with my little baby.
- (2) After the death of my father I went to Mecca.
- (3) I am twelve years old, but my sister is three years old.
- (4) All praise is due to God who is very great.
- (5) She went to see her sick mother.
- (6) He wished he could read and write Arabic.
- (7) Obey your King.
- (8) We travelled from Egypt to Madina.
- (9) Certainly Abu Bakar is standing.
- (10) By God, Mohammad is learned.
- (11) She will certainly go to the house of her father.
- (12) They will never drink wine.
- (13) Death makes no delay.
- (14) A servant told his master that his ass was stolen.
- (15) The money is in the purse.
- (16) He (God) will pardon your sins.
- (17) The poor man became rich.

- (18) Hamid went from one city to another.
- (19) God is great. He created us.
- (20) Mohammad is the Prophet of God.
- (21) Open the door of your house.
- (22) The day of the Examination is near.
- (23) Wash your face, your hands, and your feet.
- (24) You will certainly not see me.
- (25) If you strike, I will strike.
- (26) If she will walk to the mosque, I will also walk to the mosque.
- (27) God took away their light.
- (28) I wrote with a pen.
- (29) By God, Ahmad is not standing.
- (30) I believed that God was merciful.

## PERSIAN WITH ARABIC.

### FIRST PAPER.

1. In the following extracts distinguish from each other the Arabic and the Persian words, and refer these extracts to their authors:—

(a) تلمیذ بے ارادت عاشق بے زړست-و رونده بے معرفت مرغ بے پر-و عالم بے عمل درخت بے بر-و زاهد بے علم خانه بے در- مراد از نزول قرآن تحصیل سیرت خوب ست نه ترقیل سورت مکتوب- عامی متعبد پیاده رفته است-و عالم متهاون سوار خفته \*

(b) نابینائے در شب تاریک چراغی بدست و سبوتے بر دوش در راه میرفت- فضولی در راه باو دو چار شد و گفت اے نادان روز و شب پیش تو یکسان است و روشنی و تاریکی در چشم تو برابر- این چراغ را فائده چیست- نابینا بخندید و گفت- این چراغ از بهر خود نیست- از برائے چونتو کور دل بے خبر است- قابا من پهلونزنی و سبوتیم نشکنی \*

## 2. Paraphrase in Persian the following :—

(a) بیر داس را که در ایام پدرم خطاب رائے رایان یافته بود راجه بکرماجیت که از راجه هائے معتبر هندوستان بود و رصد نجوم هند در عهد او بسته شده است خطاب داده میر آتش خود ساختم - و حکم کردم که همیشه در توپخانه رکب پنجاه هزار توپچی و سه هزار ارباب توپ مستعد و آماده سوانجام نهاید - بکرماجیت مذکور از طائفه کیهنریاں است در خدمت پدر من از مشرفی فیلخانه بدیوانی و مرتبهٔ امرائی رسید \*

(b) از دیر باز مسجوع می شود که در محالات قبول شما ظلم صریح بعمل می آید - مظلومی بیچاره که تابوالی فرسد و او رفح مظلومه از سر آن نکند مظلومه در دیوان قضا بنام والی عامل بنویسند - بخشی دوم را این قدر اختیار دادن و اعتبار افزودن که دیگر را در کار او مجال عرض نه باشد چه معنی دارد - اگرچه استقلال آدم کار هر قدر باید افزود بجاست - فاما فاعل مختار ساختن و بجزیات ساختن او نه پرداختن محض بیجا \*

## 3. Render the following in your own Persian prose :—

بمعروت کرخی یکی داد پند  
 که بارشته اندیان جو را به بند  
 که حالی بر آیند موران ز خاک  
 نهانند انبساط از دانه پسا  
 بر آشفت معروت فرخنده خوی  
 کزین گونه ناسخته دیگر مگوی  
 به پرور ضعیفان رنجور را  
 چه بندی ره روزی مور را  
 چرا دانه از مور داری دریغ  
 نداری مگر شرم از ابرو میخ

نداری باین حرص و بخل قوی  
که فردا تو خود رزق موران شوی

4. Carefully explain the following in your own Persian prose :—

این چه شوریست که در دور قهر می بینم  
همه آفاق پر از فتنه و شرمی بینم  
هر کسی روز بهی میطالبد از ایام  
مشکل این ست که هر روز بترمی بینم  
ابلهان را همه شربت زگلاب و قندست  
قوت دانا همه از خون جگر می بینم  
اسپ تازی شده معروح بزیر پالان  
طوق زریں همه در گردن خرمی بینم  
دختران را همه جنگ است وجدل با مادر  
پسران را همه بد خواص پدر می بینم

5. Mention all افعال ناقصه and their government with examples.

6. Give the exact force of the suffixes in the following words, with examples :—

دانشمند - ستیگار - کمترین - شاخسار - کارزار -  
شبستان - خداوند - خاکسار - شاهوار - مردانه -  
رایگان - پهلوان - ماه وشن - غمناک -  
سنگ لایح - مرغزار \*

7. Explain the government of لم - لن and of لایم نهی with some examples of each.

8. How does مضارع differ from مستقبل ? Illustrate your answer with examples.

## SECOND PAPER.

I. Translate the following into English :—

A.

آوردند اند که سپاه دشمن بسیار بود - و ایشان اندک -  
و جماعتی آهنگ گریز کردند - پسر نعره بزد و گفت - ای  
مردان بکوشید تا جامه زنان نپوشید - سواران را بگفتن  
او تیور زیاد گشت و بیکبار حمله کردند - شنیدم که  
همدران روز بر دشمن ظفر یافتند - پدر سرو چشمش  
ببوسید و در کنار گرفت و هر روز نظر بیش کرد تا ولی  
عید خویش کرد - برادران حسد بردند و زهر در طعامش  
کردند - خواهرش از غرقه بدید و دریچه برهم زد - پسر  
دریافت دست از طعام باز کشید - و گفت - معالست که  
هنرمندان بهیرند و بے هنران جاے ایشان گیرند -

پدر را ازین حال آگهی دادند - برادرانش را بخواند  
- و گوشمال بواجب داد - پس هر یک را از اطرات بلاد  
حصه مرضی معین کرد تا فتنه فرو نشست و نزاع بر خاست  
- که ده درویش در گلیحه بغسپند - و دو پادشاه در  
اقلیمه نگنجند \*

B.

یکم را از ملوک مدت عمر سپری شد و قائم مقام  
نداشت - و وصیت کرد که بامدادان نخستین کسیکه از در  
شیر در آید تاج شاهی بر سر او نهید و تفویض مملکت  
بر او کنید - اتفاقاً اول کسیکه در آمد گدائے بود - همه  
عمر او لقمه اندوخته و رقه بر رقه دوخته - ارکان  
دولت و عیان حضرت وصیت ملک بجا آوردند و تسلیم  
مفاتیح قلاع و خزائن بدو کردند - و مدتی ملک راند - تا  
بعضی امرای دولت گردن از اطاعت او به پیچانیدند - و

ملوک از هر طرف بهنازعیت برخاستن گرفتند - و بهقاومت لشکر آراستند - فی الجمله سپاه و رعیت بهم برآمدند و برخی طرف بلاد از قبضه تصرف او بدر رفت - درویش ازین واقعه خسته خاطر می بود - تایکه از دوستان قدیمش که در حالت درویشی قرین او بود از سفر باز آمد و در چنان مرتبه دیدش - گفت منت خدای را عزوجل که گلت از خار برآمد - و بخت بلند رهبری کرد - و اقبال و سعادت یآوری تابدین پایه رسیدی \*

گفت اے عزیز عزیزتم گوئی که جای تهانیت نیست - آنکه کو تو دیدی غم نانی داشتم و امروز غم جهانی \*

C.

دو امیر زاده در مصر بودند - یکم عالم آموخت و دیگر مال اندوخت - عاقبت الامر یکم علامه عصر گشت و آن دیگر عزیز مصر شد - پس این توانگر بچشم حقارت در فقیه نظر کرد - و گفتی من بساطنت رسیدم و این همچنان در مسکنت بنهاند - گفت اے برادر شکر نعمت باری عز اسمه همچنان بر من افزون ترست که میراث پیغمبران یافتیم یعنی عالم - و ترا میراث فرعون و هامان رسید یعنی ملک مصر \*

D.

بازرگانی را هزار دینار خسارت افتاد - پسر را گفت نباید که با کسی این سخن در میان نهی - گفت اے پدر فرمان تراست نگویم - و لیکن باید که مرا بر فائده این مطلع گردانی که مصاحبت در نهان داشتن چیست ؟ گفت تا مصیبت تو نشود - یکم نقصان مایه - دوم شهادت همسایه \*

E.

مردم آزارے را حکایت کنند کہ سنگی بر سر صالحی  
 زد۔ درویش را مجال انتقام نبود۔ سنگ را نگاہ میداشت  
 ۔ تا زمانیکہ ملک را بران لشکری خشم آمد و در چاہ کرد۔  
 درویش اندر آمد و سنگ بر سرش کوفت۔ گفتا تو کیستی ؟  
 و این سنگ چرا زدی ؟ گفت من فلانم۔ و این ہماں سنگ  
 است کہ در فلاں تاریخ بر سر من زدی۔ گفت چندین  
 روزگار کجا بودی ؟ گفت از جاہت اندیشہ میکردم ۔  
 اکنون کہ در چاہت دیدم فرصت غنیمت دانستم \*

## THIRD PAPER.

## 1. Translate into Persian :—

(a) Newton was a very good-natured man. Though he was so learned, he had no pride, and his disposition was so gentle that he never grew angry. He had a favourite little dog. One night Newton had gone out somewhere, leaving a candle burning on the table in his room ; and meanwhile the dog for some reason or other, jumped on the table, overturned the candle, and set fire to the papers which Newton had been occupied in writing for years, reducing them to ashes. When Newton returned and saw what had happened, he was very much grieved, but he did not get angry and beat the dog. He only said quietly, "Dog! Little dost thou know what harm thou hast done me!"

(b) There was once a poor man named Abdulla who had six sons. The maintenance of his family was a matter of great anxiety to him, all the more so because there was great scarcity of corn in that year. Abdulla worked very hard, yet could not earn enough even to supply his children with the coarsest food, and consequently he was in sore trouble. One day he called all his children around him and said to them with tears, "My dear children, food is very dear this year. You see that with all my labour we only get a single cake of bread. I know that this will not satisfy your hunger, but it will help to keep you alive." The poor man could say no more, but looking up to Heaven began to weep, saying, "O God! Thou art the preserver of the poor, we are poor and unhappy. Have mercy upon my poor children. Help me, and do not let them die of hunger." Abdulla divided the cake into

seven pieces, and distributed them among his children, keeping the smallest piece for himself.

(c) Perhaps no work in Persian literature deserves more careful study than the writings of Hafiz. In addition to the literary beauties they contain, we find illustrations of the manners and customs of an intelligent and refined people. One who understands Hafiz can never put down the book without having received real pleasure. The verse of Hafiz is described as "rich in fancy, powerful in imagination, original, sublime, and glowing, grave and gay." By a careful study of his productions one easily sees that either he was not acquainted with the works of his contemporaries or he hated to introduce any of their opinions into his own writing. His fame to a great extent rests upon his creative imagination and upon the easy flow of his numbers. Hafiz, it is generally claimed, never borrowed ideas, and was a poet of an order essentially his own.

## SANSKRIT.

### FIRST PAPER.

I. Translate into English :—

अथ प्रभातकाले क्षेत्रपतिर्लिंगुडहस्तस्तं प्रदेशमागच्छन्  
काकेनावलोकितः । आलोक्य च काकेनोक्तम् । मित्र त्वसा-  
त्मानं मृतवत्सदृश्यं वातेनोदरं पूरयित्वा पादान् स्तब्धी-  
कृत्य तिष्ठ । अहं च तव चक्षुषी चञ्चवा विलिखामि । ततो  
यदाहं शब्दं करोमि तदा त्वमुत्थाय सत्वरं पलायिष्यसे ।  
ततः क्षेत्रपतिना हर्षोत्फुल्ललोचनेनावलोकितस्तथाविधो मृगः ।  
आः स्वयं मृतोऽयमित्युक्त्वा बन्धनान्मोचयित्वा पाशं संव-  
रितुं सयत्नो बभूव । ततः काकशब्दं श्रुत्वा मृगः सत्वरमुत्थाय  
पलायितः । तमुद्दिश्य तेन क्षेत्रपतिना क्षिप्रलिंगुडेन शृगालो  
हतः ॥

(a) State the धातु and प्रत्यय in पलायिष्यसे and संवरितुम्.

(b) Expound and name the samasas in the underlined words.



(c) Decline युष्मत् and अस्मत् in all cases and genders.

2. Write out in prose order :—

उपकारिणि विश्रब्धे श्रुद्धमत्तौ यः समाचरति पापम् ।

तं जनससत्यसन्धं भगवति वसुधे कथं ब्रह्मसि ॥

विद्यमाना गतिर्येषामन्यत्रापि सुखावहा ।

तेन पश्यन्ति विद्वांसो देशभङ्गं कुलक्षयम् ॥

यः संमानं सदा धत्ते भृत्यानां क्षितिपोधिकम् ।

वित्ताभावेऽपि तं दृष्ट्वा ते त्यजन्ति न कर्हिचित् ॥

सिद्धं वा यदि वा मिद्धं चित्तोत्साहो निवेदयेत् ।

प्रथमं सर्वजन्तूनां तत्प्राज्ञो वेत्ति नेतरः ॥

(a) Parse the underlined words.

(b) Decline उपकारिन् and सिद्धिः in all cases.

(c) State the rules of Sandhi in वित्ताभावेऽपि, सुखावहा, प्राज्ञोवेत्ति and नेतरः .

3. Write out the purport in English or Hindi :—

गुणिगणगणनारम्भे न पतति कठिनी सुसंभ्रमादयस्य ।

तेनाम्बा यदि सुतिनी वद वन्ध्या कीदृशी भवति ॥

अधोधः पश्यतः कस्य महिमा नोपजायते ।

उपर्युपरि पश्यन्तः सर्व एव दर्शयति ॥

(a) State the roots of the underlined words and conjugate them in the preterite लिट्.

(b) Decline अधोधः and महिम् in all cases.

यश्चावृणोत्यवितथेन कमणा ऋतं ब्रुवन्नमृतं संप्रयच्छन् ।

तंवै मन्येत पितरं मातरं च तस्मै न द्रष्टव्येत्कृतमस्य जानन् ॥

आपन्नाशाय विबुधैः कर्तव्याः सुहृदोमलाः ।

न तरत्यापदं कश्चिद्योऽत्र मित्रविवर्जितः ।

- (a) Translate the above into English or Hindi.  
 (b) State the roots in संप्रयच्छन् and तरति and conjugate them in the preterite लुङ्.  
 (c) Re-write the first line of the extract (2), changing the passive into the active construction.

तां पुरीं स महातेजा राजा दशरथो महान् ।  
 शशास शमितामित्रो गङ्गात्राणीव चन्द्रमाः ॥

- (a) Write out the above extract in prose order.  
 (b) Decline तत्, महत् and चन्द्रमस् in all cases.  
 (c) Conjugate the root शास् in the preterite लुङ्.

## SECOND PAPER.

1. Translate into English :—

(a) न हि जातववमन्तव्यो मनुष्य इति भूमिपः ।  
 महती देवता ह्येषा नररूपेण तिष्ठति ॥ १ ॥  
 स्नेहच्छेदेऽपि साधूनां गुणा नो यान्ति विक्रियाम् ।  
 भङ्गेऽपि हि मृणालानां मनुवन्धन्ति तन्तवः ॥ २ ॥  
 ख्यातः सर्वरसानां हि लवणो रस उत्तमः ।  
 गृहीतं च विना तेन व्यञ्जनं गोमयायते ॥ ३ ॥  
 अतिपरिचयादवज्ञा सन्ततगमनादनादरो भवति ।  
 मलये भिल्लपुरंध्री चन्दनतरुकाष्ठनिन्धनं कुरुते ॥ ४ ॥

(b) अस्त्युज्जयिन्यां साधवो नाम कश्चिद्विप्रः । तस्य  
 पत्नी कदाचिन्निजबालकस्य रक्षार्थं ब्राह्मणमवस्थाप्य स्नानाय  
 जलाशयं जगात् । अथ ब्राह्मणोऽपि पुत्रनिर्विशेषं चिरकाल-  
 पालितं नकुलं बालकरक्षार्थं व्यवस्थाप्य स्वयं राज्ञः पावणा-  
 श्राद्धं गृहीतुं राजमन्दिरं गतः । ततस्तेन नकुलेन बालक-  
 समीपमागच्छन् कृष्णसर्पं दृष्ट्वा व्यापादितः खण्डितश्च ।

ततोऽसौ नकुलः स्वामिनसायान्तमवलोक्य रुधिरविलिप्त-  
मुखपादः सत्वरमुपगम्य तच्चरणयोरुलोठ । ततः स विप्रस्तथा  
विधं तं दृष्ट्वा बालकोऽनेन खादित इत्यवधार्य नकुलं  
व्यापादितवान् । अनन्तरं यावदुपसृत्यापत्यं पश्यति तावद्वा-  
लकः सुस्थः सर्पश्च व्यापादितस्तिष्ठति । ततस्तमुपकारकं  
नकुलं निरीक्ष्य भावितचेताः स परं विपादमगमत् ।

(c) पुरा किल जरत्कारुर्नाम महातपाः कश्चिन्मुनिवरो  
ब्रह्मचर्यं स्थितोऽखिलं महीमण्डलमटन्नेकदां महागतेऽवलम्ब-  
मानानधोमुखान् निजपितृन् दृष्ट्वाऽपृच्छत् के भवन्तो  
विषण्णमवदन्ता एवमस्मिन्महागतेऽवलम्बन्त इति । पितरः  
प्रोचुर्वयं शंभितव्रता मुनयः । सन्ततिविच्छेदादतीव कष्टदशां  
प्राप्ताः सम्प्रत्यधःपतामः जरत्कारुर्नामैकोऽस्माकं वंशे वर्तते ।  
किन्तु न स मूढः पुत्रोत्पादनाय दारान् गृहीतुं वाञ्छतीति  
भृशं विषीदामः । पितृणां तद्वचः श्रुत्वा दुःखसमाकुलचेता  
जरत्कारुस्तानभाषत । भवन्तो मे पितः । अहमेव स  
जरत्कारुर्यं भवन्तो निन्दन्ति ॥

### THIRD PAPER.

#### A.

Translate into Sanskrit :—

- (1) A soft answer turneth away wrath.
- (2) Rather death, than such an action.
- (3) He travelled for twenty miles.
- (4) The merchant was angry with his son.
- (5) What is the good of selling that field ?
- (6) Ascertain whether he is in the house.
- (7) Those who seek wisdom will certainly find her.
- (8) I cannot do what you wish for many reasons.
- (9) If the boy had obeyed his master, this could not have happened.

- (10) When the elephant falls into a pit, even the frog gives him a kick.

## B.

Once upon a time there was a boy whose name was Gopāla, and he lived with his mother in a little cottage. They were very poor, and the old woman got her living by washing clothes for other people; but Gopāla was so lazy that he would do nothing at all. So they called him Lazy Gopāla. His mother could not get him to do anything for her, and at last told him, one Monday, that if he did not begin to work for his daily food, she would turn him out to get him living as best he could.

## URDU.

## FIRST PAPER.

1. Explain any two of the following passages, paying special attention to allusions and to quaint words and expressions :—

(a) بہار باغ میں کیا کیا کہلا رہی ہے گل  
شگفتہ غنچہ منقار غنچہ لیبیاں ہے  
چمن میں کیجئے اشارہ جو سوے نخل حنا  
تو ساتھ اشارہ کے اونگلی برنگ مرجاں ہے  
چمن میں بات جو کیجئے تو منہ سے پھول جھریں  
اب اندنوں میں یہ فیض بہار بستان ہے  
زمیں پہ دانہ جو پھیکا تو گر کے نخل ہوا  
نہو کی سعی سے صیاں سخت حیراں ہے

(b) جا کے کابل میں آم کا پودا  
کبھی پروان چڑھ نہیں سکتا  
مچھلی جب چھوڑتی ہے پانی سے  
ہاتھ دھوئی ہے زندگانی سے  
آگ سے جب ہوا سہنہ در دور

اسکو جینے کا پھر نہیں مقدور  
گھوڑے جب کھیت سے بچھڑتے ہیں  
جان کے لالے انکے پڑتے ہیں

(c) اس تیرے شب میں شاعر روشن دماغ ہے  
بیتیا اندھیروں گہر میں جلائے چراغ ہے  
تو با ہے اپنے سر کو گریباں میں تال کے  
اُرتا مگر ہے کھوئے ہوئے پر خیال کے  
لاتا کبھی فلک سے ہے تارے اوتار کر  
جاتا زمیں کی تہ میں ہے پھر غوطہ مار کر  
مضمون تازہ گر کوئی اس آن مل گیا  
یوں خوش ہے جیسے نقش سلیمان مل گیا

(d) سہرا لکھا گیا زرے امتثال اس  
دیکھا کہ چارے غیر اطاعت نہیں مجھے  
مقطع میں آ پڑی ہے سخن گسترانہ بات  
مقصود اس سے قطع محبت نہیں مجھے  
روئے سخن کسی کے طرف ہو تو روسیاء  
سودا نہیں جنو نہیں وحشت نہیں مجھے  
قسمت بڑی سہی پہ طبیعت بڑی نہیں  
ہے شکر کی جگہ کہ شکایت نہیں مجھے

2. Give a short account of the authors of extracts (c) and (d) in the first question, and describe the occasion on which the poem from which the last extract is taken was composed.

3. Give the meaning of any three of the following couplets, and explain the allusions which occur in them :—

(a) جوش پر رحمت باری ہے تعجب کیا ہے  
چماہ بابل کا دھواں بھی جو بٹے ابر کرم

- (b) قم باذن اللہ کھیتی آئی گلشن میں بہار  
 جی اُٹھے جو ہو گئے تھے مُردہ دل وقت خزاں  
 (c) ماں باپ سے قسمت کے بگڑ جانیکو پونچھو  
 یعقوب سے یوسف کے بچھڑ جانے کو پونچھو  
 (d) رکھشک جو بڑے ہمیں جین مت کے  
 تھکے نئے ہیں دیون پہ تھکتے پہ۔۔۔ رتے  
 (e) عی۔۔۔ دو والوں کا ہے اگ۔۔۔ پتھما  
 شیخو والوں میں جا نہیں سکتا

4. Define and illustrate :--

مركب غير استزاجي - جملہ - انشائیہ - مفعول لہ معطوف -  
 مشار الیہ

”کلام کو رنگینی اور استعرا و تشبیہ سے بلند کر  
 دکھانا آسان ہے مگر زبان اور روز مرہ کے معاورہ میں صاف  
 صاف مطالب اسطرح ادا کرنا جس سے سننے والے کے دل میں  
 اثر ہو بہت مشکل ہے“

5. Explain the meaning of the above statement and give illustrations from the authors whom you have read.

## SECOND PAPER.

1. Express any three of the following passages in simple Urdu, explaining the underlined words and phrases :--

- (a) یہ ایک دروازہ ہے رفیع اشان - بلند بنیاد  
 کہ جس کی رفعت کے آگے آسمان پستی خاک سے کمتر اور  
 جس کی اوج آسمان موج کے سامنے اوج ثابت و سپار

حضیض زمین سے پست تر ہے \*

(b) ہر درخت اُسکا رَشک قامت یار اور ہر گل اُسکا غیرت گل رخسار اُسکے سہن کے آگے بناگوش یار خجل اور اُسکے بنفشہ کے سامنے زلف خوباں منفعل \*

(c) زہے بلند پایہ حصار کہ اگر آسہاں اُسکے ایک برج کے کلس کی وسعت پیدا کرے کلاہ تفاخر کو اپنے سر پر گج رکھے اور اگر سپہر برین اُسکے ایک کنگرہ کی رفعت بہم پہنچائے اپنے جامہ میں نہ سہائے - اندیشہ اُسکی بلندی دیوار کے اندازہ کرنے میں حیران اور عقل اُسکی وسعت کی تحقیق میں سر گردان - اُسکی دیواریں آسہاں کی پشتیبان اور اُسکی خندق غیرت محیط و عہان \*

(d) آج قلم کا دماغ پتولوں کی خوشبو سے معطر ہے - کاغذ کا صفحہ آنکھ کی سپیدی کی طرح منور ہے - نظار کا تورا رگ گل کے طور پر رنکین ہے - نگاہ کا رشتہ گلدستہ کے مانند بہاریں ہے کسو اسطے کہ مجھے ایک باغ اور مکان کی صفت لکھنی منظور ہے \*

(e) ایک خیالی مشتوق کی چاہ میں بوسوں دشت جنون کی وہ خاک آرائی کہ قیس و فرہاں کو گرد کر دیا - کبھی ناہ نیم شبی سے ربح مسکون کو ہلا دالا - کبھی چشم دریا بار سے تمام عالم کو تبو دیا - آہ و فغاں کے شور سے کرویلوں کے کان بھرے ہو گئے \*

quote verses to prove that his superiority is admitted by the succeeding Urdu poets.

3. Explain the meaning and the usage of the following idioms:—

لنگوٹی میں پہاگ کھیلنا = باسی کڑھی میں اُبال  
آنا = پانی آگے پال بانڈھنا = پسلی پھڑکنا -  
رکھ پت رکھا پت

4. Explain the use of the following expressions:—

آفت کا پور کالا - چراغ سحری - سترہ بہترہ -  
جم جم - نوج - کونگ

5. Write an essay, two pages long at the least, in Urdu, on perseverance (استقلال).

6. Say whether the following words are used as masculine or feminine in the Urdu language, and give the general rule for determining the gender:—

دھی - سانس - قلم - طوطی - بلبل - فکر

7. Give the plural and meanings of:—

کاغذ - حکم - حاضر - صدا - ولی - معاملہ

8. What words are used redundantly (تابع مہمل) with the following words:—

دانہ - سیج - غلط - پوچھہ - میل - سودا

9. Analyse the following verse according to Urdu grammar:—

آرے وقت تم دائیں بائیں نہ جھانکو  
سدا اپنی گاری کو گر آپ ہانکو



## HINDI.

## FIRST PAPER.

1. Explain fully the following extracts in Hindi :—

- (1) हंसवंश दसरथ जनक राम लपन से भाइ ।  
जननी तूँ जननी भई विधिसन कछु न बसाइ ॥
- (2) कारन तें कारज कठिन होइ दोष नहिँ सोर ।  
कुलित अस्थितें चपलतें लोइ कराल कठोर ॥
- (3) आखान सांगर सांतरम पूरन पायन पाय ।  
सेन ससहुँ कतना सरित लिये जाहिँ रघुनाथ ॥
- (4) सुखिया सुखखी चाहिये खान पान कहँ एक ।  
पालइ पोषइ सकल अँग तुलसी सहित द्वियेक ॥
- (5) सानुज चीय समेत प्रभु राजत परन कुटीर ।  
भगलिछान वैराग जुनु मोहत धरे शरीर ॥
- (6) नित पूजत प्रभु पाँवरी प्रीति न हृदय समाति ।  
सांगि सांगि आयसु करत राज काज बहु भौति ॥
- (7) प्रयासल गौरकिशोर दर सुंदर सुखना ऐन ।  
खरद शर्वरी नाथ सुख शरद सरीरुह नैन ॥
- (8) पिता जनक भूपाल मनि ससुर भानु कुल भानु ।  
पति रविकुल कैरवविपिन विधु गुन रूप निधानु ॥

(a) Give the original forms of—वंश, लपन, कारज, दोष, परम, द्वियेक, किसोर, ऐन, नैन and शरद ।

2. Render the following into plain (Hindi) prose :—

(1) सुर गन-सहित समय सुर-राजू ।

खोषहिं चाहत होन अकाजू ॥

बनल उपाउ करत कहु नाहीं ।  
 रामसरन सब मे मनसाहीं ॥  
 बहुरि बिचारि परसपर कहहीं ।  
 रघुपति भगत-भगति-बस अहहीं ॥  
 सुधि करि अंबरीष दुरदासा ।  
 मे सुर सुरपति निपट निरासा ॥  
 सहे सुरन्ह बहु काल बिबादा ।  
 नरहरि किये प्रगट प्रह्लादा ॥  
 लगि लगि कान कहहिं धुनि साया ।  
 अब सुरकाज अथ के हाथा ॥  
 आन उपाउ न देखिय देवा ।  
 मानस राम सु-सेवक-सेवा ॥  
 हिय सप्रेम सुनिरहु सब भरतहि ।  
 निज-गुन-सील रामबस करतहिं ॥  
 सुनि सुरमत सुरगुप्त कहेव भल तुम्हार बहु भाग ।  
 सकल सु-संगल-मूल जग भरत-वरन-अनुराग ॥

(a) Parse—मे, मे, बिचारि, सहे, भरतहिं and सुनि ।

(b) Expound the compounds in the preceding extracts: explain the historical allusions contained in lines 4 and 5.

3. Translate the following into English :—

सुनि सनेहमय पुरजन बानी ।  
 निंदहिं जोग बिरति सुनि ज्ञानी ॥  
 एहि बिधि नित्य करस करि पुरजन ।  
 रामहिं करहिं प्रनाम पुलकि लन ॥  
 ऊंच नीच नव्यन नरनारी ।  
 लहहिं दरस निजनिज अनुहारी ॥

सावधान सबही सनमानहिं ।  
 सकल सराहत कृपा-निधानहिं ॥  
 लरिकावहिं तैं रघुवरवानी ।  
 पालत नीति प्रीति पहिधानी ॥  
 सील-लैकोच-सिंधु रघुराज ।  
 सुमुख सुलोचन सरल सुभाज ॥  
 कहत रास-गुन-गन अनुरागे ।  
 सब निज भाग सराहन लागे ॥  
 हुन सज पुन्यपुंज जग धोरे ।  
 छिन्हहिं राम जानत करि सोरे ॥

प्रेम सगन तेहि ससय सब सकल सुसंगल-मूल ।  
 सहितसभा संभ्रम दठैउ रघि-कुल-कमल-दिनेउ ॥

(a) Explain the use of the affix 'मय' in सनेहमय, रं in जानी and हिं in रामहिं and करहिं ।

(b) Give the synonyms of—विरति, पुलकि, अनुरागी, सराहत, नीति, सील, अनुरागे, प्रेममगन, and संभ्रम ।

4. Explain clearly :—

(a) भरत-रास-संध्याद सुनि सकल सुसंगल-मूल ।  
 सुख स्वारथी सराहिकुल वरपत सुरतरु-मूल ॥

(b) अग्निगुरु-तिय-गात्री नहुष चढ़ैउ भूनि-सुर-जान ।  
 लोक बेद तैं विमुख भा अधन न वेन समान ॥

(c) जब तैं कुसति कुसत जिय ठयज ।  
 खंड खंड होइ हृदय न गयज ॥  
 वर सांगत सन भइ नहिं पीरा ।  
 गरि न जीइ जुह परेउ न कीरा ॥

- (d) जीगवहिं प्रभु लियलषनहिं कैसे ।  
 पलक बिलोचन-गोलक जैसे ॥  
 सेवाहिं लषन सीय रघुबीरहिं ।  
 जिमि अविवेकी पुरुष शरीरहिं ॥

## SECOND PAPER.

1. Why is the drama *Mudrārākshasa* so called? Name the important event which served as the turning-point in the fortunes of the contending parties.

2. Explain fully the following extracts in Hindi :—

(a) अनेक राजाओं के सुकुटसागिक्य से सर्वदा जिनके पदतल लाल रहते हैं उन महाराज चन्द्रगुप्त ने आपके चरणों में दण्डवत करके निवेदन किया है कि यदि आपके किसी कार्य में विघ्न न पड़े तो मैं आपका दर्शन किया चाहता हूँ ॥

(b) सकल कुसुमरस पान करि, सधुप रसिक-सिर ताज ।  
 जो सधु त्यागत ताहि लै, होत सबै जग काज ॥

(c) बात यह है कि अर्थशास्त्र वालों की मित्रता और शत्रुता अर्थ ही के अनुसार होती है, साधारण लोगों की भांति इच्छानुसार नहीं होती । उस समय सर्वार्थसिद्धि को राक्षस राजा बनाना चाहता था तब देव पर्वतेश्वर ही इस कार्य में कंटक थे तो उस कार्य की सिद्धि के हेतु यदि राक्षस ने ऐसा किया तो कुछ दोष नहीं ॥

(d) महाराज आप नहीं जानते कि अनुचित सत्कार अनादर से भी विशेष दुःख का कारण होता है इससे मैं पृथ्वी ही पर बैठूंगा ॥

(e) ब्रश प्या कर लें, अनेक उपायों से तो वह छाती में गड़े कांटे की भांति निकाल कर दूर किया गया है, उसे दूर करने में और कुछ प्रयोजन ही था ॥

3. Write sentences to illustrate fully the uses of the following idioms :—

काम में घूर होना, ढंग जमाना, फूटकार बताना, बालू की भीत, पीछे पड़ना, काम आना, अशून्य करना, चांप तो सिर पर बूटी पहाड़ पर, दाल में काला ॥

4. Translate the following extract into English :—

तब चारों ओर से कुसुमनगर घेर लिया और नगर-बासी विचारे भीतर ही भीतर धीरे धीरे घबड़ा गए । उनकी उदासी देख कर सुरंग के मार्ग से सर्वायंमिहि तपो-वन को चला गया और स्वामी के विराह से आपके सब लोग स्थिर हो गए । तब अपने जय की डोंड़ी सब नगर में शत्रु लोगों ने फिरवा दी और आपके भेजे हुए लोग सुरंग में इधर उधर छिप गए और जिम विपक्ष्या को आपने चन्द्रगुप्त के नाश हेतु भेजा था उससे तपस्व पर्वतेश्वर मारा गया ।

(a) Write grammatical notes on विचारे, धीरे धीरे, नाशहेतु in the above extract.

(b) Write what you understand by विपक्ष्या ।

5. Give the meanings of the following words in both Hindi and English :—

प्रतिहारी, आर्य, रहस्य, उत्कंठा, दाँवघात, कृतज्ञ अनुयायी, अनुग्रह, सच्चरित्र, भदन्त ॥

6. Translate the following in current Hindi :—

The Tartar princes and princesses, from whom sprang the proud Lion of the Moghuls, were wont in their lifetime to choose

a piece of ground, to enclose it with high walls, embellish its precincts with flower-beds and groves of shady trees, and to build up it a Bārā-dari, a twelve-gated pleasure-house, where they took delight during the founder's life. When he died, the pavilion became a mausoleum and never again echoed with song and music. Perhaps the fair daughter of Asuf Khan, Shah Jahan's Sultānā, had loved this very garden in her life, for her remains were laid at death in its confines, while the Emperor commissioned the best artificers of his time to build a resting-place for her dust worthy of the graces of mind and body which are recorded in the Persian verse upon her grave.

### AGRICULTURE.

1. What food substances are obtained by the plant—

- (1) from the air ;
- (2) from the soil ?

Write a short note on the functions of—

- (a) roots ;
- (b) leaves ;

with regard to food-supply.

2. What are alluvial soils ? Explain their formation.

3. What are—

- (a) the good,
- (b) the bad,

points of clay soils ?

4. What is "green manuring?" How is it done ? What are its advantages ?

5. Describe the methods of raising water for irrigation in any district you know.

6. What are the advantages of a rotation of crops ?

7. What is meant by "in-and-in" breeding ? Describe its advantages and disadvantages.

8. What precautions should be taken with milk in order to obtain a wholesome product ?

## GEOMETRICAL DRAWING.

1. Draw a straight line  $AB$ , 3·4 inches long. At a point  $C$ , 1·7 inches from  $B$ , erect a perpendicular  $CD$ , 2·25 inches long. Draw a circle, radius ·98 inches, to touch  $CD$  and  $CA$ .

2. Construct a regular pentagon having each side 1·67 inches long. In the pentagon inscribe a square.

3. Within a circle, 1·36 inches radius, inscribe three equal circles, each touching the other two and the circumference of the first circle.

4. Construct the figure  $ABCDE$  from the following data:—

$AB$  1·75 inches  
 $BC$  2·2       "  
 $AD$  1·6       "  
 Angle  $ABC$   $120^\circ$   
       "  $BAD$   $105^\circ$   
       "  $ADE$   $120^\circ$   
       "  $BCE$   $90^\circ$

5. Two towns 237 miles apart are 3·15 inches distant from one another on the map. Construct a plain scale to show tens of miles. Draw a line 1·40 miles in length.

N.B.—*Figure and head the scale properly, showing the representative fraction.*

## GEOGRAPHY.

[Answers to PARTS I and II to be written in separate books, worked I and II respectively.]

## PART I.

1. What is the shape of the earth? Name the different zones of climate into which the surface of the earth is divided, and state the extent of each in degrees? By what lines are the zones separated?

2. What is meant by the latitude and longitude of a place? How can the longitude of any place be ascertained?

3. What are igneous, metamorphic, and sedimentary rocks? Explain how springs are formed?

4. Draw a map of the Mediterranean Sea, naming the countries that border on it and the bays, gulfs, straits, and islands lying in it.

5. What are the following, and where are they situated :—Trinidad, Gibraltar, The Mauritius, Valparaiso, Vancouver, Mesopotamia, Brest, Waterloo, the Andes, Glasgow, Kiel, The Dardanelles, Cork, Tabriz, Belgrade?

## PART II.

6. Name the different provinces into which British India is divided, giving the chief town and the designation of the ruler of each.

7. Describe the geographical situation, size, boundaries and relief of the Punjab. Name the principal rivers flowing through it, and eight of the chief towns in it.

8. Describe the position of the following towns and mention anything of interest connected with them :—Cuttack, Attock, Cherapungi, Moulmein, Roorkee, Jaipur, Kamptee, Belgaum, Calicut, Aurangabad, Bangalore, Port Blair, Galle, Mhow, Darjeeling.

9. What are the principal mineral products of India, and where are they found? What are the principal timber trees and food crops?

10. Explain why the rainfall of Bengal is greater than that of Sind.

## PHYSICS.

1. Indicate any method of finding the diameter of a sphere.

2. Prove that the rule for finding the volume of a rectangular box holds also when the lengths of the edges are expressed in cms. and decimals of a cm., e.g., when the lengths of three edges meeting in a point are 16.81 cms., 41.08 cms. and 12.70 cms., respectively.

3. Describe any method of finding the relative densities of two liquids. A U-tube of uniform bore, about half filled with water, is fixed in a vertical position and oil (density 0.8) is poured into one limb till the water rises four cms. in the other. What mass of oil was poured into the tube?

4. What is meant by *coefficient of expansion*? A copper wire is found to be 0.034 cms. longer at 25°C. than it is at 5°C.; calculate accurately what its length would be at 0°C. (Coefficient of Exp. of Copper = 0.000017.)



5. What precautions have to be taken in determining the boiling-point of a liquid? Describe any method of determination.
6. Given a slab of glass with parallel faces and four pins, show how you would use them to verify the law of the refraction of light passing from air to glass.
7. Draw the image of a pin inclined to the surface of a plane mirror.
8. What is meant by *magnetic force*? Indicate the action of the Earth's magnetism on a freely suspended bar magnet.
9. How would you show experimentally that there are two kinds of electrification and that equal quantities of each kind are produced when a body is electrified by friction?

### CHEMISTRY.

1. Describe how you would determine the melting-point of sulphur. Write an account of the properties of sulphur. How can crystals of sulphur be obtained?
  2. What is the meaning of 'relative density'? How can the relative density of iron nails be determined?
  3. What happens if you heat (a) nitre, (b) chalk, (c) blue vitriol, (d) green vitriol, (e) lead in air, (f) magnesium in air?
  4. What is combustion? Describe experiments which show that air contains at least two different gases.
  5. How can you show that in rusting and burning an increase in weight occurs?  
What do you think is the use of blowing or fanning a fire to make it burn more quickly?
  6. Describe a method for the preparation of oxygen, and give an account of its properties.
  7. What takes place when sodium is thrown upon water? How can you tell whether the solution left behind is acid or alkaline?  
How would you find out whether a given liquid was pure water or not?
  8. How would you prepare carbonic acid gas? If carbonic acid is passed into lime-water what happens?
  9. How can you show that hydrogen burns in air to form water? What precautions have to be taken in this experiment?
- N. B.—*Draw diagrams where necessary. Special marks will be given for neat and clear diagrams.*



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# ALLAHABAD UNIVERSITY.

## ENTRANCE AND SCHOOL-FINAL EXAMINATION PAPERS.

1889.

ENGLISH.

A. H. PIRIE, ESQ.,  
P. M. WALLACE, ESQ., B.A., } *Examiners.*

I. "Life would be *insupportable* to an old man, who, *loaded with infirmities*, feared death no more than in *the vigour of manhood*: the numberless *calamities* of *decaying nature*, and the *consciousness* of *surviving every pleasure*, would at once induce him, *with his own hand*, to *terminate the scene of misery*; but *happily* the *contempt* of death forsakes him at a time when only it could be *prejudicial*; and life acquires an *imaginary* value, in proportion as its real value is no more."

(a) Re-write the above sentence, substituting simpler words or phrases explaining the meaning of those *italicized*.

(b) Parse (1) *in the vigour of manhood*; (2) *would induce*; (3) *only*; and state the difference of meaning caused by placing *only* after *could*.

II. Explain:—

(a) Wherever you see a house with the doors open be very sure Fortune is not there.

(b) Far more lovely is the sturdy gloom of laborious indigence than the fawning simper of adulation.

(c) A letter written from such a place as this is a creation.

(d) The affairs of the Antediluvians lay in a narrower compass; their libraries were indifferently furnished; philosophical researches were carried on with much less industry and acuteness of penetration; and fiddles, perhaps, were not invented.



- (e) The hook in the wing of a bat is a compensating contrivance.
- (f) In whatever Station Horatio might be placed, he would climb if possible to the very top of the tree.
- (g) Gold, in the figurative language of the people, was "the tears wept by the Sun."

III. (a) Beauty strength and youth, with old age, weakness and deformity, lay undistinguished in "*the same promiscuous heap of matter.*"

Point out the terms which are contrasted with each other, and give the meaning of the expression in italics.

- (b) "It has been said that he who retires to solitude is either a beast or an angel. The censure is too severe, and the praise unmerited."

Explain which word is the censure and which word contains the praise.

- (c) "Thus was a *graminivorous* animal nurtured by a *carnivorous* and *predaceous* one."

Give the meaning of the words in italics, and state briefly the circumstance to which this refers.

- (d) "Truth to say, he was a *conscientious man* that ever bore in mind the *golden maxim*, '*Spare the rod and spoil the child.*' Ichabod Crane's scholars *certainly were not spoiled.*"

Give the meaning of the words and expressions in italics.

IV. (a) "There is nothing truly valuable which can be purchased without pains and labour."

Re-write this sentence in the *affirmative* form.

- (b) "Desert, you, Madam!" exclaimed Janet, "desert you!—may the Hope of my trust desert me when I do so!"

Express this speech in the *indicative* form; and give the meaning of the *Hope of my trust*.

- (c) "Take away his pipe? You might as well take away his nose!"

Re-write this in one sentence, beginning "To take away his pipe, &c."

- (d) "The Prince replied: 'If, my Lord, I am to make

all my brave officers Admirals, I should have no Captains or Lieutenants in my service.”

Change this speech into the *indirect* form.

V. Re-write in simple prose so as to explain the meaning :—

(a) “My boast is not that I deduce my birth  
From lions enthroned and rulers of the earth;  
But higher far my proud pretensions rise—  
The son of parents passed into the skies !”

(b) “Sweet sleep that loves the cottar’s hut,  
Beyond the Baron’s hall,  
Sweet sleep that hears the peasant’s prayer,  
Nor heeds the monarch’s call.”

VI. (a) Tell what is meant by *rhyme*; and write down in pairs the rhyming words in Question V.

(b) Give the meaning of *iambus* and *anapaest*; and correct the following verse :—

“I am *king* of all I survey,  
My right there is *no one* to dispute;  
From the centre all *around* to the sea,  
I am master of the fowl and the brute.”

VII. Explain :—

(a) “Flowers seem intended for the *solace* of *ordinary humanity*: children love them; quiet, contented, ordinary people love them as *they grow*; luxurious and *disorderly* people rejoice in them *gathered*; they are *the cottager’s treasures*; and in the crowded town, *mark*, as with a *little broken fragment of rainbow*, the windows of the workers in *whose hearts rests the covenant of peace*.”

(b) Trust me, Clara Vere de Vere,  
Form you blue heavens above us bent  
The gardener Adam and his wife  
Smile at the claims of long descent.  
Howe’er it be, it seems to me,  
’Tis only noble to be good;  
Kind hearts are more than coronets,  
And simple faith than Norman blood.”

## ENGLISH.

W. H. WRIGHT, ESQ., B.A. }  
 P. M. WALLACE, ESQ., B.A. } *Examiners.*

I. Classify "Nouns," giving *three* examples of each kind. Carefully show the three modes of denoting "Gender," with examples.

II. Enumerate the different classes of "Pronouns," and write an original sentence (not taken from any book) to illustrate the use of each kind of Pronoun.

III. What is meant by the following:—Cognate object; Dative of Interest; Strong and Weak verbs; Conjugation, Mood; Inflection of verbs.

IV. Give a few general rules with illustrations, showing how to distinguish the words of classical origin, from those belonging originally to English.

V. Explain and illustrate:—Compound sentence. Elliptical sentence. Subordinate Tenses. Metaphor. Simile. Purity of Style.

VI. Write an original sentence:—(not taken from any book) showing the usages of each of the following:—About. But only. But also. Since. Gang. Flock. Group. Fall in. Fall out. Take note. Dead. Still. Whether. Otherwise.

## URDU.

Translate into English:—

ہم لوگ اسکے قبل اُس کنارہ دریا تک پہنچ گئے تھے جہاں  
 کیا نا پاک رہا تھا اور جو اُس دیوانہ ہاتھی کے محبس سے قریب  
 تھا۔ اور اُس وقت نوکر چاکر تر کے مارے بدحواس ادھر ادھر  
 بھاگے جا رہے تھے۔ یہ عظیم الخلق جانور بے انتہا ہوشیاری  
 کے ساتھ اُس کہوئتی کے اکھار تالنے کی کوشش بلیغ کر رہا  
 تھا جس میں کہ وہ بند ہوا تھا۔ اور آخر کار وہ اس میں کامیاب  
 ہوا۔ اُسکے پیلے ہی زور شور کے اچھلنے میں وہ بھاری زنجیر  
 جس سے اوسکے گھاتے بندھے ہوئے تھے اور جس کا ایک حلقہ  
 کسی قدر کمزور اور پورا نا تھا بالکل ٹوٹ گیا۔ اور اوسنے اس  
 حالت میں کہ ایک براسا کہوئتا اوسکے پیچھے لٹکا ہوا تھا

یکایک اُس کھپ پر حملہ کیا اور وہ بے انتہا سخت آواز سے حالت جنون میں چلایا اور گرجا - نیزہ برداروں کو اُس حملہ کا گمان ہی نہ تھا - ایک بیچارہ اپنے چاول کی ہانڈی پر جھکا ہوا ادھہ بجھے کوٹلوں کو سلگاتا تھا کہ اس معجون جانور نے اُسکو اپنی لالچی لچکیلی سوند سے پکڑ لیا اور بجز آواز موٹکے اوسکو کسی اور بات کا موقع ہی نہیں ملا کہ اوسکے سر کو اُس ہاتھی نے اندے کے چھلکے کی طرح محض پاش پاش کر ڈالا - اسکے بعد یہ گھوڑوں کی طرف دوڑا جو کہ چاروں طرف کے غل و شور سے خود ہی خائف اور پرشورش ہو رہے تھے اور اپنی اگاری پچھاری کی رسیوں کو کھینچ تیر کر رہے تھے - غرض اُس ہاتھی نے ایک غریب قبولی گھوڑی کے پیٹ میں اپنا لالچا اور بے دھار کا دانٹ گڑا دیا - گھوڑی نے ہر چند بھاگنے کی کوشش کی مگو کچھ نہ بنی \*

### HINDI.

Translate into English :—

हम नदी के किनारे गये जहां रसाई हो रही थी । उस जगह के पास ही वह सस्त हाथी खूँटे में बंधा था । अब सब नौकर चाकर घबराए हुए इधर उधर भागने लगे । वह भारी जानवर बड़ी धूर्तता से और बड़े जोर से खूँटे के उखाड़ने की कोशिश कर रहा था । अन्त में उसकी कोशिश सुफल हुई । उस ने बड़े जोर के झटके से भारी जंजीर को जिसकी एक सींकड़ी घिस कर पतली हो गई थी तोड़ डाला । और खूँटे को घिसलाते हुए और चिघाड़ मार कर चिलाते हुए तम्बुओं की ओर दौड़ा जो लोग बरखा लिये खड़े थे उस हाथी के आने तक नहीं डरे । एक शख्स जो चावल की हांडी पर झुक कर आग बारने के लिये चूल्हा फूकता था उसको हाथी ने अपने लंबे सूड़ से पकड़ पाया ॥ और उसकी सौत की चिल्लाहट हमारे

कान तक पहुंच कर हम को भयचक नहीं करने पाई कि उस बेचारे का सिर उस मस्त जानवर के ससृत जान पर अंडे की नाई चकने चूर हो गया। फिर हाथी घोड़ी पर दौड़ा। घोड़े पहले ही सारे डर के चबराये हुए थे और रस्सी तोड़ कर भागने की कोशिश कर रहे थे। एक कायुली घोड़ा किसी तरह से रस्सी तोड़ कर भाग नहीं सका। उस के कांपते हुए पीठ पर हाथी ने अपने लंबे दांत को घुसेड़ दिया ॥

### ARITHMETIC AND ALGEBRA.

PANDIT LAKSHMI SHANKAR MISRA, M.A., *Examiner.*

1. Define a fraction and show that  $\frac{1}{2} = \frac{2}{4}$ .

By how much does the difference of  $1\frac{1}{2}$  and  $1\frac{1}{3}$  fall short of their sum? Express the defect as a decimal.

2. (a) Simplify  $\frac{3\frac{1}{2} - 1\frac{1}{2}}{(3\frac{1}{2} - 1\frac{1}{2}) \text{ of } (1\frac{1}{2} - 1\frac{1}{2})}$

(b) Subtract .03 from .03 and divide the result by .102

3. Find the square root of .001 to four places of decimals. What number has .1 for its square root?

4. What sum of money will amount to Rs. 1,381. 4 as. in 15 months at 5 per cent. per annum. simple interest?

5. How long will it take to walk along the four sides of a square field which contains 16 acres 401 square yards, at 3 miles an hour?

6. A and B complete a piece of work in 8 days; B and C do the same in 12 days; and A, and B, and C finish it in 6 days. In how many days will A and C complete the work?

7. Show that  $a - (b - c) = a - b + c$ .

Remove the brackets from the expression

$$(x-a)(x-b)(x-c) - [bc(xa-) + \{(a+b+c)x - a(b+c)\}x]$$

8. Find the Highest Common Divisor of  $x^3 - 8x^2 - 12x + 144$  and  $3x^2 - 16x - 112$ .

Find the Lowest Common Multiple of  $x^3 + a^3$ ,  $x^3 - a^3$ ,  $x^2 + ax + a^2$ , and  $x^2 + a^2$ .

9. Simplify

$$(a) 42 \left\{ \frac{4x-3y}{6} - \frac{3x-4y}{7} \right\} - 56 \left\{ \frac{3x-2y}{7} - \frac{2x-3y}{8} \right\}$$

$$(b) \quad \frac{a^4 - b^4}{a^2 + b^2 - 2ab} \div \frac{a - b}{a^2 + ab}$$

10. Solve the following equations:—

$$(a) \quad \frac{2(2x-1)}{9} - \frac{3x-2}{13} = 1$$

$$(b) \quad \left. \begin{aligned} (a+b)x - (a-b)y &= 3ab \\ (a+b)y - (a-b)x &= ab \end{aligned} \right\}$$

11. If  $a:b::c:d$  prove that

$$a^2 + b^2 : a^2 - b^2 :: c^2 + d^2 : c^2 - d^2.$$

12. A, who travels  $3\frac{1}{2}$  miles an hour starts  $2\frac{1}{2}$  hours before B who goes the same road at  $4\frac{1}{2}$  miles an hour; where will he overtake A?

## GEOMETRY AND MENSURATION.

F. H. FIRTH, ESQ.,

H. O. BUDDEN, ESQ.

} *Examiners.*

1. Enunciate all the propositions of Euclid, Book I, in which the equality of three parts in a pair of triangles involves equality in all respects.

2. Construct a triangle, having given the base, one of the angles at the base, and the sum of the sides.

3. To describe a parallelogram that shall be equal to a given triangle and have one of its angles equal to a given rectilineal angles,

4. From a given point in one of the sides of a triangle, draw a straight line to meet the other side produced, so that the triangle thus formed, shall be equal to the given triangle.

5. In every *obtuse angled* triangle, the square on the side subtending an *acute* angle, is less than the squares on the sides containing that angle, by twice the rectangle contained by either of these sides, and the straight line intercepted between the perpendicular let fall on it from the opposite angle, and the acute angle.

6. In any triangle the sum of the squares on the two sides is equal to twice the square on half the base together with twice the square on the straight line joining the vertex to the middle point of the base.

7. (a) From a given circle to cut off a segment containing an angle equal to a given rectilineal angle.

(b) Having given the base and the vertical angle of a triangle, show that the triangle is greatest when it is isosceles.

8. To inscribe an equilateral and equiangular pentagon in a given circle.

9. Find the cost of lining a rectangular cistern, 12 ft. 9 in. long. 8 ft. 3 in. broad, and 6 ft. 6 in. deep, with sheet lead weighing 8 lb. per sq. ft. and which cost £1. 8 s. per cwt.

10. A tower, which stands on a horizontal plane, subtends a certain angle at a point 160 feet from the foot of the tower. On advancing 100 feet towards it, the tower is found to subtend an angle twice as great as before. What is the height of the tower?

11. The sides of five sided figure ABCDE are  $AB=25$  ft.;  $BC=29$  ft., and  $CD=39$  ft.,  $DE=42$ ., and  $EA=27$  ft. Also  $AC=36$  ft., and  $CE=45$  ft. Find its area.

12. Draw a plan, and find the area of a piece of land, from the following notes:—

0	⊙A	
72	672	
	416	
	294	
	228	
0	142	0
38	55	12
Turn	to the	right.
	⊙C	
	⊙C	
0	640	
60	543	
0	305	
30	220	
Turn	to the	right.
	⊙B	
	⊙B	
	416	0
	364	15
	200	25
	0	0
From	⊙A	go N. E.

## ARABIC.

MAULVI SYED AMJAD ALI, M.A., *Examiner.*

## I. Translate into English :—

قيل كان في ايام سليمان رجل يقال له حزيمة بن بشر بن بني اسد كانت له مروة ظاهرة و نعمة حسنة و فضل و بر بالاخوان - فلم يزل علي تلك الحالة حتي قعديه الزمان فاحتاج الي اخوانه الذين كان يوا سيهم - فواسوه حينئذ - فلما لاح له تغييرهم اتى امرأته وكانت ابنة عمه - فقال لها يا ابنة عمي قد رايت من اخواني تغييرا - وقد عدت علي ان الزم بيتي الي ان يا قيني الهرت - فاغلق بابي و اقام يتقورت بها عنده حتي نفدت و بقي حائرا \*

II. Give the original forms of the following, in the above extract, with diacritical marks, i.e., حرکت و سکون.

قيل - ايام - يقال - بني - مروة - لم يزل - بر - الحالة - احتاج - واسوه - لاح - اتى - عم - اقام - حائرا \*

III. Give the Urdu meanings of the following and supply their singulars or plurals as the case may be :—

طريق - افنان - ايوان - شعاع - دينار - مناطق - مولود - أبطال - سوق - جعائل \*

IV. Write idiomatic Urdu or English expressions for the following :—

سقط مغشيا عليه - دمت عيناہ - قرع الباب - غر غرت عيناہ بالدسوع - ابتدره الغلمان - اغهي عليه طويلا - جعل يحلف ويلك - قاتلك الله - اقبلت اشق الصفوف - فتح الله علي \*

V. Explain the origin and use of the following proverbs and rewrite them with diacritical marks :—

تسبح بالعبيد مي خير من ان تراه - لكل فرعون موسي \*

VI. Enumerate and give example of :—

(1) حروف الجر - (2) حروف نصب الفعل - (3) حروف العزم \*

VII. Explain, as clearly as you can, the following



verses, naming the author and mentioning what you know about him; either in English or in Urdu:—

اذا ما الناس جربهم كبیب \* فانی قد اكلتهم وذاقا  
قلم ارودهم الا خدا عا \* وام ار دينهم الانفاقا

VIII. Explain allusions in the following and comment on the word باقیس:—

قد هدد قدما عرش بلقیس هدد \* و خرب فار قبل ذبا سد مارب

IX. Translate the following verses into English:—

یا دهر مهلاکم تجورو تختدی \* ولکم باخوانی ' تروح و تختدی  
ما آن ان ترثی اطول تشنتی \* و ترق یامن قبله کالجلید  
واسأت احبابی بها اشمیت بی \* کل العداة بها صنعت من الردي  
وقد اشتغی قلب العدو بهارای \* من غربتی و صبابتی و تو حدی  
لم یکفه ماحل بی و من کربة \* و فراق احباب و طرب ارمه  
حتی بلیت بضیق سجن لیس لی \* فیه انیس غیر عیض بالید  
ومدامح تمهی کفیض سعادتب \* و غلیل شوق نازة لم تخمد  
شوق اکا بده و حزن متلف \* و وقعت فی وجد مقیم مقعد

### ARABIC.

MAULVI SYED AMJAD ALL, M.A., Examiner.

I. Translate into English:—

فہشینا الی آخر النهار - قد دخل علینا المیل و نحن علی هذه الحالة -  
فہمنا قليلا - و استیقظنا من منا منا - و اذا بفتحیان عظیم  
قد احاط بنا و بلغ و احدا منا - فتمعجبنا من ذلک غایة  
التعجب - و حزننا علی رقیقنا - و صرنا فی غایة الخوف علی  
انفسنا - و قلنا و الله هذا امر عجیب - ثم اننا قمنا فہشینا  
فی الجزیرة - و اكلنا من ثمرها - و شربنا من انهارها -  
و ام نزل فیها الی وقت المساء - فوجدنا شجرة عظیمة  
عالیة فطلعناها - و نبنا فوقها \*

مات سیف الدولة فی سنة سبع و خمسين و ثلثمائة - و كان  
موتہ بحلب فی صفر - و حمل تابوته الی میا فارقین

فدفن بها - و كان مولده في ذي الحجة سنة ثلث وثلثمائة -  
 و هو اول من ملك حلب من بني حميدان - اخذها من احمد  
 بن سعيد الكلابي نائب الاخشيد - و كان سيف الدولة  
 شجاعا كريما شاعرا - ولها توفي سيف الدولة ملك بلاده  
 بعده ابنه - و في هذه السنة توفي ابو الفرج - قيل انه  
 جمع كتاب الاغانى في خمسين سنة - و حمله الي سيف  
 الدولة فاعطاه الف دينار - و اعتذر اليه \*

II. Translate into Arabic supplying diacritical marks  
 very carefully :—

(1) Let no one who can write refuse to write; (2) I am afraid he  
 will not leave me; (3) I journeyed till I entered it; (4) Is there a  
 man in thy house? (5) There was a merchant and there were to  
 him three sons and four daughters; (6) Man is compounded of soul  
 and body; (7) He killed himself with his own hands; (8) Joseph  
 (يوسف) came to me, I saw Joseph, and I passed by Joseph; (9)  
 Noah (نوح) called his Lord; (10) Lord! My son is in my family;  
 (11) Verily Thy promise is true; (12) And Thou art the most  
 merciful of all; (13) He said, O Noah! he is not in thy family;  
 (14) He is an immoral fellow; (15) Abraham was father of  
 Ismael; (16) An Abraham came to me and spoke of another Abra-  
 ham; (17) When Omar (عمر) comes to thee give him this book;  
 (18) Amru (عمرو) saw two men and three women; (19) These two  
 men came from Mecca (مكة): (20) I will certainly stick to thee  
 until thou givest my due on thee; (21) All praise is due to God,  
 the Lord of the whole world; (22) A ruler without Justice is like  
 a river without water; (23) I have neither gold nor silver by me;  
 (24) I wrote on paper with the reed pen; (25) Honour thy guest,  
 whether he be rich or poor.

### PERSIAN.

SHAMS-UL-ULAMA MAULVI ZAKA-ULLAH, KHAN }  
 BAHADUR. } Examiners.  
 MAULVI ABDUL JALIL. MUNSHI RAM KISHEN. }

I. Write out and translate literally any four prudential  
 maxims (پندھاے-سواماں) of Sâdi that you may remember.  
 Translate the following phrases :—

کارها بصبر بر آید و مستعجل بسر در آید - احمد مجتبی -  
 محمد مصطفی - صلی الله علیه وسلم \*

II. Translate the following passage into English; and explain in Persian allusion it contains:—

اکثر ارباب اخبار اتفاق دارند که آن قدوة احرار در مبدء  
 حال در سلک مهالیک یکے از بنی اسرائیل انتظام داشته و در  
 سبب آزادی او وجوه متعدد ثبت نهوده اند و اکثر آنها در  
 ماثر الملوک مرقوم کلک بیان گشته درین مقام خوف علی التطویل  
 بر ایراد یک روایت قناعت نهاید \*

III. Re-write the following passage in Persian, avoiding the use of Arabic words as far as possible:—

نخست مطابق قانون سلطنت کبری اسپان باد پا با ایراق  
 مرصع و مینا و فیلان نامی کوه پیکر با ساز هائے مکمل و مکمل  
 و مرصع و مطلا از نظر انور میگذرند بعد از آن شاهزاد هائے  
 والا تبار درجه بدرجه در قرب سریر خلافت و مسند سلطنت  
 اجازت نشستن دارند \*

IV. Explain in Urdu the purport of the following passages:—

(a) اُردوے گیہان پوے شہریست روان و ملکیت ہمیشہ  
 آبادان - و کثرت ہجوم اُردوے جہاں پیہا از ناطق و صامت  
 بہر تہہ میشود کہ پہلو بہ پہلو و دوش بدوش و پائے برپائے  
 یک دیگر گذاشته میروند و ارباب حرفت و صنعت کہ وطن  
 مالوفہ آنها اُردو بازار است و خانہ بر دوش این طائفہ است  
 با احوال و ائصال و اہل و عیال بجمعیت خاطر و فراغ بال با  
 افسانہ و ترانہ طی منازل می نہایند و در کوچ و مقام باہم  
 کہ خدائیا می کنند و توالد و تناسل پسرو دختر در اُردو می  
 شود و اطفال را در سبد انداختہ و سبد را بر دوش گذاشتہ  
 بہنزل می آرند حفظ الہی و عدالت شاہنشاهی شامل حال  
 خلایق است با این ہمد انبوہی و ازدحام کہ از احاطہ تصور بیرون

میرباید طفل یک روزه و پیر صد ساله از دست و پا تئ اسپو  
فیل سلامت می رود - مطربان و رقاصان بازیگران هر دیار نغمه  
کژان و دشت زنان می آیند و صدای جرس و زنگ و زنگوله و آواز  
مردم و شور و غوغای انسان و حیوان بفر سنگها میرسد \*

(b) متهم جز طویلہ نباید جائے پا بگذارند غریبیل نباید هر  
کز اطاق من بیفتد - امروز کریم مهتر غلبیرو را دست گرفته  
اطاق من آمده غلبیروش را اینجا گذاشته رفته است غفلتاً  
گوشه کمانش پاگذاردم - گوشه دیگرش بلند شده چنان بزافوام  
خرده که حالا هم از درد آن نمی توانم پایم را حرکت بدهم \*

V. Explain the formation of the following words. Give examples of similar forms.

صامت - طائفه - مستعجل - اصرار - مبداء - منازل \*

VI. Explain the following extracts a, b, c, d, either in English or Persian: —

(a) رنگ آمویی و در شیهای آن زیر پایم پرنیان آید همی  
میر ماه است و بخاره آسهان ماه سوه آسهان آید همی

Mention the various readings of the first couplet (شعر). State the object of the poet in writing this Kasida. Did he attain that object?

(b) اگر مادر شاه بانو بودی مراسیم وزر قابزانو بودی  
چو اندر تبارش بزرگی نبود نیارست نام بزرگان شنود

Write any two couplets composed by other poets in praise of Firdousi.

(c) دشوار بود بانگ تو از خانه بد هلیز

آسان رود آواز و از بلخ به بلخار

در دست خود مند همه حکمت گوید

جز ژاژ نخاید همه در دست سبکسار

کلاغان طبیعت را زباغ انس بیرون کن

همایان سعادت را بدام امتحان درکش

چو خاص الخاص جان گشتی ز صورت پائے بیرون نه  
هزاران شربت معنی بیکدم رائگان درکش

Write out the words having ترکیب اضافی in the last two couplets above.

Explain the composition of the following words, and give the meaning of the elements of which they are compounded:—

رائگان - دشوار - بلغار - دھلیز - سبکسار - کتخدائی

(d) دست صبا در خیال نافه کشائے آمده است

بر سر در سنگ باد غالیہ سائے آمده است

ابر مشعبد نہاد پیش طلسم بہار

ہر سحر از ہر شجر سحر نہائے آمده است

گفتہش چیست کہ خدائی گفت ہفتہ عیش و غصہ سالے چند

گفت اورا مثال دنیا چیست گفت زائے کشندہ خائے چند

الون نہعتی کہ نشاید سپاس گفت

و اسباب راحتے کہ ندانی شہار گرد

اجزائے خاک تیرہ بتا تیر آفتاب

بستان و میوہ و چمن و لالہ زار کرد

بگردون تیرہ ابرے بامدادان برشد از دریا

جواہر خیزو گوہر ریزو لو پیزو گوہر زا

تنش باقیہ آلودہ داش باشیر آمودہ

برون پر سرمہ سودہ درون پر لو کوے لالا

(e) Give the masdar of ریز-خیز-ریز Give the antecedent of تنش

VII. Write the norist (مضارع) and the continuative past tense (ماضی استمراری) of the following verbs:—

رستن - رستن - جستن - جستن - گزیدن - گزیدن - نوشتن

نوشتن

## PERSIAN.

SHAMS-UL-ULMA MAULVI ZAKA-ULLAH, KKAN  
BAHADUR.

MAULVI ABDUL JALIL.

MUNSHI RAM KISHUN.

*Examiners.*

1. Translate into English :—

پلنگ گفت آورده اند که روباه گرسنه بطلب طعمه از  
سوراخ بر آمده هر جانبے نگا پوے میکرد ناگهان بوئے که  
آسایش روح او باشد شهید و بجانب آن شتافت پوست پاره  
تازه دید که یکے از دندان گوشت خورده برد و پوست رها  
کرده - چشم روباه از آن روشنائی یافت و تن او توانائی  
گرفت آن را یچنگال گرفته روے بگوشه نهاد - در میان راه  
گذرش بر کنار دهی افتاده مرغان فربه دید که دران صحرا  
می چریدند و زیرک غلام نگهبانی ایشان میکرد - روباه را  
میل گوشت مرغ در جنبش آورده از پوست پاره فراموش  
کرد درین میان شغاله گذر کرد پرسید که اے برادر غمگین  
می نمائی چه واقع دست داده روباه گفت اے عزیز گرسنگی  
بسیار کشیده ام و خداوند روزی پوست پاره بمن ارزانی  
داشته و حالا آرزوے دارم که ازین مرغان یکے بچنگ آورم  
و عیش گوار - سازم - شغال گفت خیال معال در سرداری  
من مدتھا در کھین نهادن می باشم آن غلام زیرک را که می  
بینی در نگهبانی صید آن اهتھام دارد که این مقصود نمی  
آید باین همه بهجود خیال خورسندم و درین آرزوها روزے  
بشب و شبی بروز می آرم - تو که پوست پاره یافته غنیمت  
شمار و ازین فضوای در گذر - روباه گفت ای برادر مراهبت  
بلند نمی گذارد که بپاره پوست بے مزه سر فرو آرم و دل از  
گذشت گوشت فربه بر گیرم - شغال گفت ای خام طمع حرص  
و اھبت بلند نام کرده نمیدانی که راحت در قناعت است -  
می ترسم که درین فضوای که در پیش گرفته آن پوست پاره

هم از دست رود تو یکبارگی از پاي درآئي - و قصه تو  
بقصه آن دراز گوش مي ماند که دم مي طلبيد و گوش نيز  
بر باد داد \*

2. Translate into Persian :—

He said that his chief's wish was to make his friends happy.  
The old chief is in great grief, because his friend is dead. My  
friend told me that all the chiefs would be at Darbar.

(a) A fierce wolf flew at the little girl, and caught her in his  
mouth. The little bird flew away with a piece of bread in its mouth.  
To each of his sons he gave piece of land and a small house. He  
said that he had taken out the old screw and put in a new one.  
He told me that he had screwed the two pieces of wood together.  
He said that she had screwed down the top of the box.

(b) A father who contracts debts is an enemy ; a mother who  
is unchaste is an enemy ; a wife who is beautiful is an enemy ;  
and a son who is not learned is an enemy.

(c) There are two delicious fruits of this world, the poisonous  
tree, viz; the nectarine taste of poetry and literature, and society  
of good people.

(d) As jewels are without dress, food without ghi, so is life  
without knowledge.

### SANSKRIT.

PANDIT A. R. BHATTACHARYA, M.A., *Examiner.*

I. Turn the following sentences into your own Sanskrit,  
i.e., re-write them, avoiding words and constructions of the  
text as far as possible :—

कस्मिंश्चिदधिष्ठाने ब्रह्मदत्तनामा ब्राह्मणः प्रतिवसति स्म ।

सच प्रयोजनवशात् ग्रामे प्रस्थितः स्वमात्रा अभिहितः ।

वत्स कथं त्वमेकाकी ब्रजसि, तद्विषयतां कश्चिद् द्वितीयः

सहायः । स ग्राह्यः अस्व मा भैषीः निरुपद्रवोऽयं मार्गः

ततो गुरुकार्यवशादेकाकी गमिष्यामि ॥

II. (a) Decline the base of the following words through-  
out the *Vibhaktis*, in the gender in which they are used  
here :—

कश्चित्, एकाकी, ब्रह्मदत्तनामा

(b) If you take away the particle स्म, would the meaning of the predicate in the first sentence be in any way affected ?

(c) Change the construction of the sentence स स्वमात्रा अभिहितः from the passive into the active.

(d) Conjugate the root of प्रतिवसति in लिट् (second preterite) and लृट् (second future), and that of अभिहितः in लृट् (present).

(e) Parse आह and note peculiarity in the form and use of मा भेषीः ।

III. Render the following stanzas into prose, avoiding words and construction of the text as far as you can :—

सनोरथानां न समाप्तिरस्ति  
 वर्षायुतेनापि तथाब्दलक्ष्यैः ।  
 पूर्णेषु पूर्वेषु पुनर्नवाना  
 मुत्पत्तयः सन्ति सनोरथानाम् ॥  
 पद्भ्यां गता यौवनिनश्च जाता  
 दारैश्च संयोगक्षिताः प्रसूताः ।  
 दृष्टाः सुतास्तत्तनयप्रसूतिं  
 दृष्टुं पुनर्वाञ्छति मेघन्तरात्मा ॥  
 आमृत्युतो नैव सनोरथाना  
 मन्तोऽस्ति विज्ञातमिदं मयाद्य ।  
 सनोरथासक्तिपरस्यचित्तं  
 नजायते वै परमात्मसङ्गि ॥

IV. (a) Note the peculiarity in the gender and number of सारैः

(b) Give the component parts (प्रकृति प्रत्यय) of यौवनिनः and इतरः



(c) Expound the *Samasa* of the compounds.

सनोरथामक्तिपरस्य, परमात्मसङ्घि ।

V. Translate into English :—

ततोऽन्तरिक्षगो वाचं व्याजहार नलं तदा ।  
 हन्तव्योऽस्मि न तेराजन् करिष्यामि तवप्रियम् ॥  
 दमयन्ती सकाशे त्वां कथयिष्यामि नैषध ।  
 यथा त्वदन्यं पुरुषं संस्यते सा न कर्हिचित् ॥  
 एवमुक्तस्ततो हंसमुत्ससर्ज महीपतिः ।  
 ते तु हंसाः समुत्पत्य विदर्भानगमंस्ततः ॥  
 विदर्भनगरीं गत्वा दमयन्तीसमन्तिके ।  
 निपेतुस्ते गरुत्मन्तः सा ददर्श च तान् खगान् ॥  
 अथ हंसा विसृष्टपुः सर्वतः प्रमदा बने ॥  
 दमयन्ती तु यं हंसं समुपाधावदन्तिके ।  
 स मानुषीं गिरं कृत्वा दमयन्तीमथाब्रवीत् ॥  
 दमयन्ति नलो नाम निषधेषु महीपतिः ॥  
 अश्विनी; सद्रूणे रूपे न समास्तस्य मानुषाः ॥  
 तस्य वै यदि भार्य्या त्वं भवेया वरवर्णिनि ।  
 सफलं ते भवेज्जन्म रूपञ्चैदं सुनध्यमे ॥

VI. Quote half a dozen slokas from the *Chanakya-Niti*, and explain them in English.

### SANSKRIT.

PANDIT A. R. BHATTACHARYA, M. A., Examiner.

I. Translate into English :—

(a) सर्वः पदस्यस्य सुहृद्वन्धुरापदि दुर्लभः ।

ये यान्त्यापदि बन्धुत्वं सुहृदो बन्धवश्चते ॥

(b) किं नु मेस्यादिदं कृत्वा किं नु मेस्यादकुर्वतः ।

इति संचिन्त्य मनसा प्राज्ञः कुर्वीत वानवा ॥

(c) आसीदयोध्यायां पुरि भूरिवसुर्नाम वशिक् । तस्य प्रचुर वसुर्नाम पुत्रो बभूव । स च पितरि मृते लब्धपितृविभवः पितृपरिजन वृद्धान् पृच्छति स्म । हे वृद्धाः कथयत मम पिता केनोपायेन धनमे तावत् अर्जितिवान् । वृद्धा ऊचुः । वशिज्या केवलम् । प्रचुरवसु रुवाच । कीदृशी सा वशिज्या । वृद्धा ऊचुः । साधो पिता तव वाराणस्यां क्रीतं वस्तु अयोध्यायामयोध्यायां क्रीतं वस्तु वाराणस्यां विक्रीय यदा यत्र सुलभं तदा तत् क्रीणाति सहार्घ्यं विक्रीणीते । ततो भवानपि व्यवसायं कर्तुमर्हति ॥ पुरुषो व्यवसायं विना लक्ष्मेश्वरोऽपि लक्ष्म्यापरिहीयते ॥

II. Translate into Sanskrit :—

(a) No hands has He, nor feet, nor eyes, nor ears ;  
And yet He grasps and moves and sees and hears.  
He all things knows, Himself unknown of all,  
Him men the great primeval Spirit call.

(b) There was a king of *Ajodhya* named *Dasaratha*. *Rama*, *Lakshmana*, *Bharatha* and *Satrughna* were his four sons. *Kaikeyi*, a wife of *Dasaratha*, caused *Rama* to go to the forest—there to reside for fourteen years. *Rama's* wife, *Sita*, and his brother, *Lakshmana*, accompanied him. At that time *Ravana* was the king of the *Rakshasas* in the island of *Lanka*. He carried off *Sita*. *Rama* went to *Lanka* with an army of monkeys. He killed *Ravana* and gave away the kingdom of *Lanka* to *Ravana's* brother *Vibhishana*, and returned to *Ajodhya* with his wife and brother.

## HISTORY AND GEOGRAPHY.

H. G. J. SIDDONS, ESQ. }  
A. VENIS, ESQ., M.A. } Examiners.

I. Give some account of the early inhabitants of India. What is the present population of this country ?

II. Sketch the life of Akbar the Great, and show how he organized the Empire.

III. Write a short account of the great Mahratta confederacy.

IV. Mention some of the chief events connected with the administration of Lord William Bentinck.

V. Narrate briefly the chief events in the reigns of Henry VIII. and Elizabeth.

VI. State what you know of the following :—

Simon of Montfort ; Wycliff ; Oliver Cromwell ;  
Maud ; Marlborough ; Wellington.

VII. Describe Magna Charta ; the Habeas Corpus Act ; the Petition of Right ; the Declaration of Right ; the Septennial Act ; the Act for the better government of India (1858).

VIII. Name in order, and give a brief description of the places you would pass in making a coasting voyage round India from Bombay to Calcutta.

IX. Draw a sketch map of the Nile, marking tributaries and towns on its banks.

What is meant by the *right* bank of a river ?

Name two famous African explorers.

X. Describe the new route from England to the East *via* Canada or *via* the United States.

XI. What are the chief islands of the Indian Archipelago ? Name their products and account for the fact that two distinct divisions of animal life are to be found there.

XII. Define "climate," and give some account of the various causes that affect it.

XIII. Explain carefully how springs are formed. What is the difference between a *hard* spring and a *soft* spring ?

## ENTRANCE EXAMINATION, 1890.

### ENGLISH.—FIRST PAPER.

W. C. HORST, Esq.	A. H. PIRIE, Esq.	} <i>Examiners.</i>
C. E. WELBY, Esq.		
BARU MODHU SUDAN MUKERJI.		

I. Explain the following passage :—

Who ever gazed upon the broad sea without emotion ? Whether seen in stern majesty, hoary with the tempest, rolling its giant waves upon the rocks, and dashing with resistless fury some gal-

lant bark on an iron-bound coast, or sleeping beneath the silver moon, its broad bosom broken but by a gentle ripple, just enough to reflect a long line of light—a path of gold upon a pavement of sapphire;—who has looked upon the sea without feeling that it has power to stir the soul with thoughts profound?

II. Substitute other words for those that are italicized in the following expressions :—the earth is *constantly on the wing*—the forest *older than the flood*—the *issue* of the combat *all had foreseen*—he replied that he was a *citizen of the world*—the skilful Lombard *took the initiative* in that business—fruits that *rise between the tropics*—in 1745 the Leyden jar was *stumbled on*—of all the millions of *the Modern Babylon*.

III. Explain clearly :—

- (a) Nature abhors a vacuum.
- (b) A more economical nature yields nothing except to the sweat of Man's brow.
- (c) Trade is the golden girdle of the globe.
- (d) Time writes no wrinkle on thine azure brow.
- (e) About the hour when the bloody die was to be cast for the life or death of Rebecca.
- (f) Sunny tokens of the line.
- (g) We see the Great Western Road, as far as the eye can reach, thronged with a bleating mass of wool.
- (h) Defoe was a century before his time.
- (i) The infusion of a China plant is sweetened with the pith of an Indian cane.
- (j) In one rich soul Plato, the Stagirite, and Tully joined.

IV. Write the meaning of the following passages in simple prose :—

- (a) And should my youth, as youth is apt, I know,  
Some harshness show,  
All vain asperities I day by day  
Would wear away,  
Till the smooth temper of my age should be  
Like the *high leaves* upon the holly tree.
- (b) Haply some hoary-headed swain may say,  
“ Oft have we seen him at the peep of dawn,  
Brushing with hasty steps the dews away,  
To meet the sun upon the upland lawn.”

V. “ Say to the Grand Master,” replied Rebecca, “ that I maintain my innocence, and do not yield me as justly condemned,

lest I become guilty of mine own blood. Say to him that I challenge such delay *as his forms will permit, to see if God, whose opportunity is in man's extremity, will raise me up a deliverer.*"

(a) Turn the above passage from the direct into the indirect form.

(b) Give the meaning of *whose opportunity is in man's extremity*.

(c) Parse the words that are printed in italics.

VI. Explain clearly the allusions in :—

(a) To the lantern.

(b) Let the hawk stoop, his prey is flown.

Write grammatical notes on *rounds* and *building* in—

(c) The watchmen paced their *rounds*.

(d) While the mill was *building*.

Supply the words that are omitted in—

(e) And happy were my limbs fleet enough to repair the mischief done by my tongue.

VII. Derive :—Copper, pyramid, cambrie, sterling. How do the names Kilmarnock and Lancaster throw light on the origin of the places to which they belong?

VIII. Explain :—

(a) "Heaven helps those who helps themselves" is a well tried maxim, embodying in a small compass the results of vast human experience. The spirit of self-help is the root of all genuine growth in the individual, and exhibited in the lives of many, it constitutes the true source of national vigour and strength. Help from without is often enfeebling in its effects, but help from within invariably invigorates.

(b) Beware of too sublime sense  
Of your own worth and consequence !  
The man who dreams himself so great,  
And his importance of such weight,  
That all around, in all that's done,  
Must move and act for him alone,  
Will learn in school of tribulation  
The folly of his expectation.

IX. Write short notes on :—Rowland Hill, Teneriffe, Ivanhoe, The British Solomon.

## ENGLISH.—SECOND PAPER.

I. By the help of suffixes convert the following adjectives into nouns:—*sweet, wise, pure, perfect*; the following nouns into adjectives:—*grace, brother, foot, wood*; the following adjectives into verbs:—*just, humble, strong, wide*; and the following verbs into nouns:—*dig, sow, receive, think*.

II. Construct sentences showing the use of *high* as (1) adjective and (2) adverb, of *step* as (1) noun and (2) verb, *that* as (1) relative pronoun, (2) conjunction, and (3) adjective, and *but* as (1) adverb, (2) conjunction, and (3) preposition.

III. (a) What is meant by *regular* and what by *irregular* comparison? Compare *ill, high, upmost, gay, evil, and pretty*.

(b) Construct complete sentences, having a noun as subject, containing (1) the past progressive of *lie*, (2) the past indefinite passive of *catch*, the present progressive passive of *cut*, and the future perfect passive of *smite*.

IV. Define and illustrate by examples the following grammatical terms:—A noun in opposition, the nominative absolute, cognate object, extension of the predicate, complex sentence, antecedent, reflexive pronoun.

V. Give the *general* analysis of the following sentence, pointing out the nature of the different clauses, and stating their grammatical relation to each other; and parse fully the words in italics:—"All the remedy *that offered* to my thought at *that* time was to get up into a thick bushy tree *like* a fir, which grew near me, and where I resolved to sit all *night*, and consider next day what death I should die, for as *yet* I saw no prospect of life."

## URDU TRANSLATION.

Translate from Urdu into English:—

چھوٹی چھوٹی تجارت گاہیں جہاں گاؤں کے لوگوں کی ضروریات مل سکیں ہر جگہ چند میلوں کے فاصلہ پر موجود ہیں۔ یہ مقامات اکثر چند کچے مکان اور چھوڑوں کے اجتماع سے بن گئے ہیں اور کسی سڑک کے دونوں جانب واقع ہیں۔ ان میں کہیں ایک دو مکان ایسے بھی ہیں جنکی کوٹھی اور کھپڑیل سے صاف

ظاہر ہے کہ یہ غلہ فروشوں اور سہاجنوں کے مکاں ہیں۔ اور یہ دونوں پیشے اکثر ایک ہی شخص کرتا ہے۔ سوائے انکے ایک تہتیرا ہوتا ہے جو پیتل کے برتن کھانے اور پینے کے بیچتا ہے جو کہ وہاں کے لوگوں کے گویا کل اسباب خانہ تصور کیئے جاسکتے ہیں۔ اور چند بزاز ہوتے ہیں جنکے بہت تھوڑے کم قیمت روٹی کے کپڑے اور موٹے قسم کے کھبل ہوتے ہیں۔ اور ایک حلوائی کی دوکان۔ اور ایک یا چند چھپر جسکے نیچے ایک حلوائی پتوں کے آگ سے دال یا جوار اولاٹا ہے جسکے بیڑ بیونجا سوکھے پتوں کے آگ سے دال یا جوار اولاٹا ہے جسکے سوائے اور کوئی ناشتہ مسافر کو نہیں مل سکتا۔ کیونکہ روٹی کو رسوئیں کی جگہ سے علیحدہ کر کے کھانا مذہب میں منع ہے۔ جن دنوں میں بازار لگتا ہے جو کہ اکثر دو دن فی ہفتہ ہوتے ہیں انہیں سڑک کے دونوں جانب کے درختوں کے سایہ میں تیوری دیر کے لیئے دوکانیں لگائی جاتی ہیں جنہیں بساطی اور بنڈے چٹائیاں بچھا کر شیشہ کی اور تھپاکو مالے اور چھاجم رنگین پہنچیاں لاکھ یا شیشہ کی اور تھپاکو کو (سوکھا ہوا چبانے کو اور میٹھا ملایا ہوا گتھی بنایا ہوا پینے کو) اور تیورے بہت اقسام مختلفہ کے معمولی اور ترکاریاں علیحدہ علیحدہ سرپا کر اور کھول کر رکھتے ہیں\*

### HINDI TRANSLATION.

Translate from Hindi into English:—

सर्वत्र वनिज व्यापार की छोटी २ वस्तियां बीच २ में चन्द मील के फ़ासले पर वसी हैं। जहां दिहाती रिझाया के प्रयोजन की वस्तु मिलती हैं। ये वस्तियां सहक के किनारे पर स्थित होती हैं और कच्ची भीत के झोपड़ों की होती हैं। जहां तहां दो एक दो मनज़िले सकान भी नज़र में आते हैं जिन के ऊपर के कोठों से और खपरो से यह सालूम हो जश्ता है कि वह किसी बड़े वनिया या सहाजन का रहने

का सकान है ॥ ये लोग गल्ला बेचना और लेन देन का दोनों पेशों को एक साथ उठाये रहते हैं ॥ इन बनियों के सिवा वहां ठठरे भी बसते हैं जो खाने पीने के थाली लोटों की सरबराह करते हैं । और यही वर्तन बहुतेरों की गृहस्थी का कुल असबाब होता है ॥ उसी बस्ती में एक बजाज भी दूकान रखता है जिसके पास थोड़े से सस्ते सूती कपड़े और मोटे क्रिस्म के जूनी कम्बल रहते हैं ॥ और हलवाई भी वहां रहता है ॥ और दो एक कोपड़ों में भुजवे भार में सूखे पत्तों की आग की आंच पर चना, भुटा, या, बाजरा भूजते हैं ॥ और यही पथिकों का आहार होता है । क्योंकि ये अपने धर्म की सूर्यादा के अनुसार चौके के बाहर घर की पकाई रोटी नहीं खाते ॥ जब (हफ्ते में दो दिन) हाट लगता है सड़क के किनारे पेड़ों के तले थोड़े काल के लिये दूकाने खड़ी हो जाती हैं ॥ और जमीन पर चटाई बिछा कर फेरी वाले और पसारी काच के दाने, रङ्ग बरङ्ग की लाह की छड़ियां, तमाकू (सूखी सुंह में रखकर कुचुलने के लिये और गुड़ में सना लुगदी हुक्का में पीने के लिये) और साधारण प्रकार के शुद्ध मसाले और भाजी तरकारी धरते हैं ॥

## ARITHMETIC AND ALGEBRA.

### FIRST PAPER.

PANDIT LAXSHMI SHANKAR, M.A., *Examiner.*

1. Multiply 347695 by 20026, and divide the product by 01905.

2. Simplify :—

$$1\frac{2}{3} + 3\frac{1}{3} - 5\frac{5}{6} + 2\frac{1}{4} - 1\frac{1}{12}$$

3. Find by practice or otherwise the value of 2,345 mds. 27 seers and 10 chhataks of wheat at 3 Rs. 10 as. 8 ps. per maund.



4. Extract the square root of  $1 - (.00135)^2$  to 5 places of decimals.
5. The weight of a cubic inch of water is 253.17 grains, that of a cubic inch of air is .31 grains; find to 3 places of decimals how many cubic inches of water are equal in weight to one cubic foot of air.
6. On measuring a distance of 32 yds. with a rod of a certain length it was found that the rod was contained 41 times with  $\frac{1}{2}$  an inch over. How many inches will there be over in measuring 44 yds. with the same rod?
7. If  $s = a + b + c$ , prove that  
 $(as + bc)(bs + ca)(cs + ab) = (b + c)^2(c + a)^2(a + b)^2$ .
8. Solve the following equation :—  

$$x - \left(3x - \frac{2x + 5}{10}\right) = \frac{1}{6}(2x + 57) + \frac{5}{3}$$
9. Extract the square root of  $\frac{a^2}{b^2} + \frac{b^2}{a^2} + 3 + \frac{2a}{b} + \frac{2b}{a}$ .
10. Simplify :—  

$$\left(y - \frac{a^2 - xy}{y - x}\right)\left(x + \frac{a^2 - xz}{y - x}\right) + \left(\frac{a^2 - xy}{y - x}\right)^2$$
11. If  $a : b :: c : d$  prove that  
 $(a^2 + c^2)(b^2 + d^2) = (ab + cd)^2$ .
12. A person walked out a certain distance at the rate of  $3\frac{1}{3}$  miles an hour, and then ran part of the way back at the rate of 7 miles an hour, walking the remaining distance in 7 minutes. He was out 35 minutes. How far did he run?

## GEOMETRY AND MENSURATION.

### SECOND PAPER.

H. O. BUDDEN, Esq. }  
 PANDIT SUDHAKER DUBE, } *Examiners.*

- I. Define a straight line, an acute angled triangle, a circle, parallel straight lines, a gnomon, an angle in a segment. When are magnitudes said to be equal? What is meant by the height of a triangle?

II. If two triangles have two sides of the one equal to two sides of the other, each to each, and have likewise their bases equal, the angle which is contained by the two sides of the one shall be equal to the angle contained by the two sides equal to them of the other.

(A direct proof of this proposition may be given if preferred.)

III. Prove that if a straight line fall upon two parallel straight lines, it makes the alternate angles equal to one another.

IV. If two opposite sides of a parallelogram be bisected, and two lines be drawn from the points of bisection to the opposite angles, these two lines trisect the diagonal.

V. If the square described upon one of the sides of a triangle be equal to the squares upon the other two sides, show that the angle contained by these two sides is a right angle.

VI. Given that the square on a line divided into any two parts is equal to the squares on the two parts together with twice the rectangle contained by the parts; from this proposition deduce a proof of the 47th proposition of Book I.

VII. If a straight line be divided into any two parts, the squares on the whole line and on one of the parts are equal to twice the rectangle contained by the whole and that part, together with the square on the other part.

VIII. The angle at the centre of a circle is double of the angle at the circumference upon the same base.

IX. If two straight lines cut one another within a circle, neither of which passes through the centre, prove, without assuming the previous cases proved by Euclid, that the rectangle contained by the segments of one of them is equal to the rectangle contained by the segments of the other.

X. To describe an isosceles triangle having each of the angles at the base double of the third angle.

Give the *construction only* of this problem.

(b) Divide a right angle into five equal parts.

XI. A ladder 24 feet long stands upright against a wall; how far must the bottom of the ladder be pulled out so as to lower the top 3 feet?

XII. Find the diameter of the circle round a triangle whose sides are 123, 122, and 49.

### ARABIC.—FIRST PAPER.

MAULVI SYED AMJAD ALI, M. A., *Examiner.*

I. Translate into English :—

قيل كان تاجر سعيدا - فاراد الخروج الي بعض الجهات - وكان عنده مائة من الحديد - فاودعها عند رجل من اخوانه - وذهب الي سفره - ثم لما قدم من السفر توجه الي صاحبه وطلب منه الوديعة فقال له صاحبه قد اكلتها البجردان - قال قد سمعت لاشيء اقطع من اسنانها - ففوج الرجل بتصديقه علي ما قال - ثم ان التاجر خرج ولقي ابن الرجل - فاخذه وذهب به الي بيته - ثم رجع الي الرجل من الغد - فقال له الرجل هل عندك من ابني خبر؟ فقال التاجر اني حين خرجت من عندك بالامس رايت بازأ اختطف غلاما لعد ابذك - فصرخ الرجل وقال يا قوم هل رايتم او سمعتم ان البزاة تخطف الصبيان؟ فقال التاجر ارضا تا كل جردانها الحديد ليس بهستنكر لبزاتها ان تخف الغيلة - قال الرجل انا اكلت حديدك - وهذا ثمنه - فاردد علي ولدي \*

2. (a) Re-write the above with diacritical marks (حركات) as clearly as you can.

(b) Write out the تَعْلِيل that the word باز in the above tale has undergone; give other words with similar تَعْلِيل, adding their plurals and meanings; and use these words with the addition of ال the definite article, accounting for the change at the end of them.

(c) Give the ثلاثي مجرّد infinitive of استنكر and the استفعال infinitive of اكلت and اختطف.

3. Give the roots, the meanings, and the singulars or plurals, as the case may be, of the following :—

لقمة - مرة - امير - لحم - لبن - شريف - جوارى - همة - حمار - قارورة - سبيل - متغشم - شيخ - سرب - لاح - فائب -

خبيعة - تاج - ودايح - معان - رسول - نبي - فواش - مجنون -  
رزق - ضاقت - آغار - عبد - عزائم - قصة \*

4. Who was *ابن الطيار*, and how was the epithet derived?

5. Give the infinitive (مصدر) of all the ثلاثي مزيد taking *نصر* for your root. Mention the various *babbs* (اَبواب) of the trilaterals (ثلاثي مجرد); placing the *حركات* of *عين كاء* as distinctly as you can in their past and future tenses singular.

6. (a) Give a list of prepositions (حروف جر) with meanings of each and examples so far as you remember from your Arabic text. Other examples than the above can also do.

(a) Mention *حرف مشبه بفعل* and their government (عمل); illustrate with examples.

(c) Mention the governments of *يا*, *اس*, *مار*, *ام* illustrating with examples.

7. Translate into English:—

الجد يدني كل امر شاسع والجد يفتح كل باب مغلق  
واحق خلق الله بالهم امرؤ ذوهمة يبلي بعيش ضيق  
ومن الدليل علي القضاء وحكمه يؤس اللبيب وطيب عيش الاحق  
بقدر الكد تنقسم الهماي فمن طالب العلم سهر الليالي  
تروم العز ثم تمام ليلا يغوص البحر من طالب اللالي  
ومن طالب العلم من غير كد اضاع العمر في طالب الهمال

8. (a) Name the different authors from whom the above poetical extracts are taken, and mention in short what you know about them.

(b) Separate the different parts of speech (according to Arabic Grammar) in the above and put them under proper heads.

(c) Make present participles (اسم فاعل) singular masculine from the following:—*يؤس* - *اضاع* - *تنقسم* - *يغوص* - *طالب* - *يقتح* - *يبلي* - *قدر* - *خلق* - *ضيق* -

9. Give the origin and the application of the proverb,

تسبح بالهميدي خير من ان تراه

10. Translate the following and mention the tale connected with it as given in your text:—

در - سراد از نزول قرآن تحصیل سیرت خوب است نه تر قیل  
سورت مکتوب - استعداد به تربیت درویش است و تربیت نا  
مستعد ضایع - خاکستر نسبتی عالی دارد که آتش جو هر  
علوی ست و لیکن چون به نفس خود هنری ندارد با خاک  
برابر است

لقمان معاصر داؤد سلام الله علیه بود و پیوسته به (b)  
مجلس شریف حضرت نبوی آمد شنید - نمود - اکثر ارباب  
اخبار اتفاق دازند که آن قدوه احرار در مبداء حال در سلک  
مهالیک یکی از بنی اسرائیل انتظام داشته و در سبب آزادی  
او وجوه متعدده ثبت نهوده اند و اکثر آنها در مائثر الهلوک  
مرقوم کلک بیان گشته \*

بعد از انقضای شام باز بدماغ تازه و طبع شگفته که (c)  
اصلا متغیر و متبدل نمی شود بلکه در هنگام کار طراوت و تازگی  
دیگر بهم می رساند بر سریر فلک نظیر تکیه زده همت والا  
بانتظام امور خلافت مصروف می فرمایند و گوهر مطالب خاص  
که از دیده ارباب بصیرت مخفی و مستور مانده باشد بغواصی  
فکر و دستیاری طبع دقیق بچنگ آورده آویزه گوش اهل  
هوش می سازند و هیچ مطلبی از مطالب و مقصودی از مقاصد  
در پیش طبع باریک بین اشراف موقوف و محطل نمی ماند \*

برای زن سو گلیت نیم تنه یخه در لجه طلا فرمایش (d)  
میدا دید - بارک الله ببردی شما - خواهید گفت خواهرم زن  
هدایت خان برای شعله خانم سوقات فرستاده است بارک الله -  
خواهرت را بمن می شناسانی - خراهر تو از خسیسی مثل  
تاجر های اصفهانی پذیرا تو شیشه کرده ناناش را پشت  
شیشه میکشد - حال دهچو شده است که نیم تنه پنجاه و شصت  
تومانی برای زن تو سوقات بفرستد \*

II. (a) Write briefly in Persian what you know about دانه

(b) Explain the following phrases, and frame short sentences to illustrate their use:—

گیر افتادن - ویل کردن - طبع موشگاف - فرامین جهان مطاع -  
قصب السبق - طرفه العین

III. (a) Give the derivation and meaning of the following, and write down the singulars of the plural nouns and the plurals of those that are singular:—

عوائق - جریده - افواه - سورت - مهالیک - تلهید - آیات -  
صلوة - قورچیان -

(b) Give English equivalents for میر توزکان - یسارلان - برق افدولان and عسسان

IV. Explain as clearly as possible in Urdu the following verses:—

(a) جهان تیره است و ره مشکل جنیبت را عذبان در کش  
زمانی رخت هستی را بخلو تگاه جان در کش  
کلاغان طبیعت را زباغ انس بیرون کن  
همایان سعادت را بدام امتحان در کش  
چو خاص الخاص جان گشتی ز صورت پای بیرون نه  
هزاران شربت معنی بیکدل را نگان در کش  
(b) در صبح آن راح ریحانی بخواه \* دانه مرغان روحانی بخواه  
ساغرے چون رشک داؤدی برنگ \* از پئے روع سلیمانی بخواه  
زاهدان را آشکارا می بده \* شاهدان را بوسه پنہانی بخواه  
(c) کجا خیزد چو تو سروی جوان و نازک و دلبر  
شکر گفتار و شیرین کار و گل رخسار و مه پیکر  
نباشد چون لب و اندام و گیسو و برت هرگز  
شکر شیرین و گل رنگین و شب مشکین و صبح انور  
برد اندیشه مهر و فراق و آرزو تو  
زشخصم تاب و رویم آب و چشم خواب و جانم خور

V. Translate the following into English and explain the figures of speech contained therein:—

ز عدل کامل خسرو ز لطف شامل سلطان  
تدرو و کعب و گور و مور گردستند در گیهان  
یکی ههخانه شاهین دوم ههخانه طغرل  
سه دیگر مونس ضیغم چهارم ههسدم ثعبان  
خداوند جهان سنجبر که ههواره چهار آیت  
بود در رایت و راه و جبین و روع او پنهان  
یکی به روزی دولت درم فیروزی ملت  
سه دیگر زینت دنیا چهارم نصرت ایمن  
شد اندر عهد او باطل شد اندر عصر او ناقص  
شد اندر قرن او زائل شد اندر وقت او پنهان  
یکی ناموس کیخسرو دوم مقصدار اسکندر  
سه دیگر نام افریدون چهارم ذکر نوشیروان

VI. (a). Explain the allusions in the last verse of the above.

Distinguish between تافیه and تریفه define متربی

### PERSIAN.—SECOND PAPER.

RAM KISHEN. SYED KALAN, M.A. *Examiners.*

1. Translate the following passages into English:—

(a) آورده اند که شبانی نزدیک کناره دریا در روز روشن  
رمة خود را می چرانید چمن سکون آب دریا دیدخواست که  
ترک شبانی گرفتد پیشه تجارت اختیار کند پس به سرعت  
در چند تها مترو گوسفندان خود را بفروخت و از آن زر بستمهای  
انجیر خرید و آن را بر کشتی بار کرده بقصد تجارت بر روی  
دریا روان شد قضا را با مخالف و زیدن گرفت و ملاحان از  
بهر سلامت خود و امان کشتی بار سفینه را در دریا انداختند

بیچاره شبان ازین مصیبت ناگهانی از خیال تجارت باز آمد  
و پیشه قدیم خود اختیار کرد - روزی بر همان ساحل گوسفندان  
می چرانید آب دریا را ساکن یافته خطاب کرد و گفت آیا باز  
التجیرها میخواهی \*

عفو ملوک را بهترین صفتی است و اهل اقتدار را (b)  
خوشتروین جبلتی و اگر ملوک در عفو و مرحمت در بندند و از  
هر کجا چون اندک خیانتی بینند در باب او بعقوبت اسر  
فرمایند نزدیکان را اعتقاد صافی نهاند و دیگر بر ایشان اعتماد  
نکنند و ازین حال دو علت حادث شود یکی آنکه کارها مهمل  
و محطل ماند دوم آنکه مجرمان از لذت عفو و منت اغراض بی  
نصیب شوند - یکی از اکابر ملوک گفته است که اگر خلق بدانند  
که کام جان ما بچاشنی عفو چه لذت می یابد هر آئینه جز جرم  
و خیانت هدیه بدرگاه ما نیاورند - و پسندیده سیرت ملوک را  
آن است که عقل ارجهند را در حوادث حاکم خویش سازند و در  
هیچ وقت اخلاق خود را از لطف و درشتی خالی نگذارند \*

II. Translate the following passages into Persian :—

(a) - The people of Bhutan are rude, robust, and dirty, with flat faces of the Tartar type, and high cheek bones narrowing down to the chin. They have ruddy brown complexions; black hair cut close to the head; small, black, almond-shaped eyes; very thin eyelashes; and little or no eyebrows or beards. They are coarse and filthy in their manners, and leave all the field work to the women, who are as coarse as the men.

(b) The height of the camel is, in general, about six feet, and the body is covered with dusky or ash-coloured hair. It has a short head, small ears, and a long bending neck, and is rendered remarkable by the humps on its back. It is the most temperate of animals, and it can continue to travel several days without drinking. In those vast deserts, where the earth is everywhere dry and sandy, where there are neither birds nor beasts, neither insects nor vegetables, where nothing is to be seen but hills of sand and heaps of stone—there the camel travels, posting forward without requiring either drink or pasture, and is often found six or seven days without any sustenance whatsoever.



## SANSKRIT.—FIRST PAPER.

PANDIT ADITYA RAM BHATTACHARYA, M.A., *Examiners.*

कस्मिंश्चित् सरोवरे भारण्डनामा पक्ष्येकोदरः पृथग्भीवः  
प्रतिवसति स्म । तेन च समुद्रतीरे परिभ्रमता किञ्चित् फलम-  
मृतकल्पं तरङ्गाक्षिप्तं सम्प्राप्तम् ॥ सोऽपि भक्षयन्निदमाह । अहो  
बहूनि मया फलानि भक्षितानि परमपूर्वोऽस्यास्वादः । एवं  
तस्य ब्रुवतो द्वितीयमुखेनाभिहितम् । भो यद्येवं तन्मनापि  
स्तीकं प्रयच्छ । येन जिह्वासीख्यमनुभूयामि । ततो विहस्य  
प्रथमवक्त्रेणाभिहितम् । आवयोस्तावदेकमुदरमेकावृत्तिं भ-  
वति । ततः किं पृथग्भक्षितेन । वरममेन शेषेण प्रिया तोष्यते ।  
एवमभिधाय तेन शेषं भारण्डयाः प्रदत्तम् ॥ द्वितीयं मुखं  
तद्विनादेव प्रभृतिः सोद्वेगं सविषादं च तिष्ठति । अजान्येद्यु-  
र्द्वितीयेन मुखेन विषफलं प्राप्तं । तद्दृष्ट्वा परमाह । भो पुरुषाधम  
मया विषफलमासादितम् । तत्तवापमानाद् भक्षयामि । अप्येवं  
वदता तेनापमानेन फलं भक्षितम् । द्वावपि विनष्टौ ॥

(a) Quote the *shloka* which points the moral to this tale.

(b) Analyze the *Sandhi* occurring in कस्मिंश्चित्; भक्षयन्निदम्;  
अन्येद्युर्द्वितीयेन; द्वावपि ॥ And state rules by which you are  
authorized to do so.

(c) What part of the verb is आह । Conjugate its root in  
the tense in which it is used.

(d) Change the construction of the following from the  
passive into the active :—

(1) तेन परिभ्रमता किञ्चित् फलं सम्प्राप्तम् ।

(2) प्रथमेन वक्त्रेणाभिहितम् ।

(3) अनेन शेषेण प्रिया तोष्यते ॥

(e) Expound the *Samāsas* of भारण्डनामा, एकोदरः, पृथग्भीवः,  
पुरुषाधम ॥

(f) What other cases could you use in the place of (1) मम (2) भुवतो and (3) भारण्डाः in (1) ममापि स्तोकं प्रयच्छ (2) तस्य भुवतो and (3) भारण्डा प्रदत्तम् ॥

2. मृदघट इव सुखमेद्योः दुःसन्धानश्च दुर्जनो भवति ।  
सुजनस्तु कनकघट इव दुर्भेदः सुकरसन्धिश्च ॥

आरम्भगुर्वीक्षयिणी क्रमेण लघ्वी पुरा वृद्धिमती च पश्चात् ।  
दिनस्य पूर्वोर्द्धपरार्द्धभिन्ना ह्यायेव मैत्री खलसज्जनानाम् ॥

Turn the above into easy prose.

3. Quote a couple of couplets from the Hitopadesasāra-sangraha in praise of पुरुषकार; and one from the Mahābhārata enjoining respectful conduct towards parents and teachers. And translate them into English.

4. (1) व्यथां जहि स्वबुद्ध्या त्वम् स्वयं यास्यामि तत्र च ।  
एतद्धि परमं नार्थ्याः कार्यं लोके सनातनं ।  
प्राणानपि परित्यज्य यद् भर्तुर्हितमाचरेत् ॥

(2) आत्मा पुत्रः सखा भार्य्या कृच्छन्तु दुहिता किल ।  
स कृच्छ्रान्मोचयात्मानं साञ्च धर्मं नियोजय ॥

(a) By whom and on what occasion were the thoughts in the two above extracts given expression to ?

(b) Explain the second extract.

(c) Conjugate the root of जहि in the tense in which it is used. Give its passive past participle.

5. Write short notes on the proper names occurring in the following *shloka* :—

यां गतिं सगरः शैव्यो दिलीपो जनमेजयः ।  
नहुषो धुन्वमारश्च प्राप्तास्तां गच्छ पुत्रक ॥

6. Translate into English :—

यां हि शूरा गतिं यान्ति संग्रामेष्वनिवर्त्तिनः ।  
हतास्त्वभिमुखा पुत्र गतिं तां परमां व्रज ॥

यां गतिः सर्वभूतानां स्वाध्यायास्तपसश्च या  
 भूमिदस्याहितमिदं एकपत्नीव्रतस्य च ।  
 गौसहस्रमदातृणां गुरुदेवाभ्युतामपि ।  
 देहन्वासकृतां या च तां गतिं गच्छ पुत्रक ॥

### SANSKRIT.—SECOND PAPER.

PANDIT ADITYA RAM BHATTACHARYA, M.A., *Examiner.*

1. Transtale into English :—

इदं गथा प्रणीतं पुस्तकं सर्वथा परिशुद्धमिति वक्तु-  
 मशक्यम् तथापि यावता परिश्रमेण परिशुद्धिर्भवति  
 तावान् भूयान् परिश्रमः कृतोऽस्ति ॥

अस्मिंल्लोके नरस्य चरितान्येव तं गुरुत्वं लघुत्वं  
 वा नयन्ति ॥

गच्छतस्तिष्ठतो वापि जाग्रतः स्वपतोऽपि वा ।

यन्न भूतहितार्थाय तत् पशोरिव चेष्टितम् ।

कृते प्रत्युपकारो यो वणिग् धर्मो न साधुता ।

तत्रापि ये न कुर्वन्ति पशवस्ते न मानुषाः ॥

अणु पूर्वं बृहत् पश्चाद् भवत्यार्येषु सङ्गतिम् ॥

विपरीतसन्धार्येषु यथेच्छसि तथा कुरु ॥

सद्भिरेव सदासीत सद्भिः कुर्वीत सङ्गतम् ।

सद्भिर्विवाहं सैत्रीञ्च नासाद्भिः किञ्चिदाचरेत् ॥

2. Translate into Sanskrit :—

(a) Once-upon a time a learned man went to a king. The king being pleased with his vast knowledge said to him: "Worthy Sir, I wish to ask you one question. Be pleased to answer it. Tell me, 'what is God?'"

(b) A boy once saw a golden coin fallen on the ground. He took it up and said: "I will keep it with me; no one will know

that I have got it." But he immediately remembered the words of his teacher and his parents. The words were 'Though thou dost not see God, He sees thee.'

(c) A king is the strength of the weak ; crying is the strength of children ; silence is the strength of the ignorant ; forgiveness is the strength of the righteous.

## HISTORY AND GEOGRAPHY.

REV. L. F. PHILLIPS, M. A.,

P. M. WALLACE, ESQ., B.A.

BABU ABHAYA CHURN SANYAL, M.A.

} *Examiners.*

1. Where was the original home of the English People ? When did they settle in England, and how was the country governed before the Norman Conquest ?

2. What led to the war between Charles I. and the Parliament ? Sketch briefly the course of events from the execution of the king to the Restoration.

3. Who was the last king of the House of Stuart ? When did he come to the throne, and by whom, and under what circumstances was he succeeded ?

4. Give the dates of the following events :—the Battle of Waterloo, the Great Charter, the Death of Henry VIII., the Battle of Cressy, the Defeat of the Spanish Armada, the Accessions of Queen Victoria, the Murder of Thomas a Becket, the Battle of Bosworth.

5. State what you know of the various Muhammadan invasions of India.

6. At what date and with what object was the East India Company formed ? What previous connection had there been between India and European countries ?

7. Sketch the career of Clive.

8. Write a short account of each of the following :—Tantia Topi, Gautama, Humayun, Sivaji, Nanek, Ranjit Singh, Nandkumar.

9. Name in order the countries, with the chief rivers and towns, that a ship would pass in sailing *along the coast* from Alexandria to D'Urban (Port Natal) previous to the opening of the Suez Canal.

10. State the geographical positions, forms of government, and chief towns, of the following countries:—Canada, Egypt, Brazil, New South Wales, Mexico, New Zealand, the United States, Afghanistan. Why is the last named called a “*buffer state*”? Who are the Maories?

11. Describe (a) the courses of the following rivers:—Canton, Amazon, Jumna, St. Lawrence, Tigris;

(b) the positions of the following mountain ranges:—Atlas, Neilgherry, Ural, Alleghany.

12. What do you know of the size, shape and motions of the earth?

13. Explain the following terms:—Dew point, Watershed, Delta, Volcano, Moraine, Trade Winds.

### ENTRANCE EXAMINATION, 1891.

#### ENGLISH.—FIRST PAPER.

H. O. BUDDEN, Esq.     }  
W. C. HORST, Esq.     } *Examiners.*

*N.B.*—Particular attention must be paid to neat writing and correct spelling.

1. Give the meaning of the following passages in other words:—

(a) The closing scene of the French dominion in Canada was marked by circumstances of deep and peculiar interest. The pages of romance can furnish no more striking episode than the battle of Quebec. The skill and daring of the plan which brought on the combat, and the success and fortune of its execution are unparalleled.

(b) The inhabitants of the ocean are as much creatures of climate as are those of the dry land; for *the same Almighty hand which decked the lily and cares for the sparrow* fashioned also the pearl and feeds the great whale, and adapted each to the physical conditions by which his providence has surrounded it.

2. (a) What is the allusion in the part in italics in the above extract?

(b) Why is “*decked*” in the past tense and “*cares*” in the present, and so with the verbs following?

(c) Point out the different uses of the definite article as they occur in 1, (b).

3. *Explain* carefully the following extracts :—

(a) The fine thread of that far spreading web which makes London the most sensitive spot on the earth.

(b) The mercurial little Frenchman was beside himself with exultation.

(c) The river which lay, like Jordan, between her and the Canaan of liberty on the other side.

(d) One of the most momentous political question that have ever yet moved the human race was decided in this struggle.

(e) Expectation darkened into anxiety, anxiety into dread, and dread into despair.

(f) They patiently tolerated their nominal dependence only because they were virtually independent.

(g) It rubs off some of the rust of national prejudice.

4. (a) What figures of speech are used in extracts *e* and *g* in the above ?

(b) Criticise the construction in extract *d*.

(c) Define a compound sentence, a complex sentence, and an adverbial sentence; and point out an example of each in the above question.

5. Express in simple prose, using the indirect form of narration, the meaning of the followings lines :—

(a) O ye, the wise who think, the wise who reign !  
From growing commerce loose her latest chain.  
And let the fair white-winged peacemaker fly  
To happy heavens under all the sky,  
And mix the seasons and the golden hours,  
Till each man finds his own in all men's good,  
And all men work in noble brotherhood.

(b) Man through all ages of revolving time  
Unchanging man, in every varying clime,  
Deems his own land of every land the pride,  
Belov'd by heaven o'er all the world beside;  
His home the spot of earth supremely blest,  
A dearer, sweeter, spot than all the rest.

6. Explain the meanings of the following words by a reference to their derivation;—carnival—dexterous—disaster—balcony—metropolis—disseminate—perennial—carnage.

7. Write brief accounts of:—

The Revocation of the Edict of Nantes.

The Pilgrim Fathers.

The Parable of the Rich Man and Lazarus.

8. Give in your own words, in simple plain English, the meaning of the following passages, which are not in your prescribed text book:—

(a) We are inclined to think that we shall best meet the wishes of our readers, if, instead of dwelling on the faults of this book, (Life of Warren Hastings) we attempt to give, in a way necessarily hasty and imperfect, our own view of the life and character of Mr. Hastings. He had great qualities, and he rendered great services to the State. But to represent him as a man of stainless virtue is to make him ridiculous; and from regard to his memory, if from no other feeling, his friends would have done well to lend no countenance to such extravagant praise. We believe that if he were now living, he would have sufficient judgment and sufficient greatness of mind to wish to be shown as he was.

(b) And now my duty leads me far away :  
My Sire commands it, and I must obey.  
Where'er the order that my parents give,  
I yield obedience, or must cease to live.  
No, Sita, not the sacrificial blaze,  
True heart, or liberal hand, or lip of praise,  
Will with such lasting joy the spirit fill  
As glad obedience to a father's will.

#### ENGLISH.—SECOND PAPER.

C. E. WELBY, Esq.

C. H. LINTON, Esq., B.A.

} *Examiners.*

1. Explain the distinction of nouns into abstract and concrete. Classify the following nouns—William I, humanity, virtue, brilliant, gold, fleet, city, quadruped. State in what respects nouns are inflected. Give two instances, of nouns that have their singular and plural alike, of nouns that have two plural forms with different meanings; of nouns that are used only in the plural.

2. Compose sentences to illustrate the use of *as* and *but* as substitutes for the relative pronoun. By short sentences:

show the distinction between *that* used as a demonstrative pronoun and *that* used as a demonstrative adjective. Compose sentences to show the correct use of each ; either ; older and elder ; later and latter.

3. What is the meaning of tense ? Distinguish between the force of—I write and I am writing ; I wrote and I have written. What is the gerundial infinitive ? Parse the italicized words in the following :—

He thanked him for *saving* his life,

He dreads *going*.

A house *to let*.

*To err* is human.

4. Give, with examples, the different kinds of adverbs. Refer each of the following adverbs to its class—whither, seldom, certainly, as, only. State the difference in meaning between—He only lived for their sakes, and, He lived only for their sake.

5. (a) Form sentences to illustrate the difference between :—Habit and custom ; repentance and remorse ; unnatural and supernatural.

(b) Explain the force of *to* in 'ten to one' ; of *after* in 'to name after' ; of *against* in 'against my return.'

(c) Correct the following sentences and point out what error has been made :—

(1) The whole army were defeated and fled.

(2) His horse is very much like that of my father's.

(3) Can I leave the room ?

(4) He has neither kin nor kith in the country.

(5) If it was not so I would have told you.

(d) Explain the force of the prefixes in the following :—*afoot*, *gainsay*, *twilight*, *withstand*, *circumscribe*, *illegal*, *manuscript*, *amphibious*, *archangel*.

## URDU.

Translate into English :—

قندھار کا راستہ جو تقریباً تین سو ستر میل ہی نہایت دلچسپ راہیوں اور سرسبز میدانوں اور سیراب چشموں سے گذرتا ہے لیکن ہملوگوں کو کبھی کبھی ایک پورا دن بلکہ



دو دو دنوں تک پتھر پلای اور اوسر اور محض بے آب جگہوں میں گھورتوں پر بیٹا بیٹا پھرنا پڑا \*

بہت دنوں کے بعد ہملوگوں نے باغات اور مغللات قندھار کے جو اس ضلع کا تختگاہ تھی دیکھا۔ یہ شہر نہایت مضبوطی کے ساتھ قلعہ بند تھی اور عینہ توپوں کے ذریعہ سے یہ محاصرہ کو اچھی طرح برداشت کر سکتا ہے \*

چونکہ یہ بولن پاس کو اپنے زیر تصرف رکھتا ہے اسی شہر سے فارس کی تجارت ہندوستان سے ہوتی ہے - بولن پاس کے قریب بجانب ہندوستان شکار پور واقع ہے \*

جب قندھار سے کابل کو روانہ ہوئے تو ہمارا راستہ محض پتھاری ملک میں واقع تھا - راستہ میں بڑے بڑے چٹان تھے اور نہایت نشیب و فراز تھا مگر پانی خاصی طرح سے مل سکا تھا - بیس میلوں کے طے کرنے میں کہیں شاذ ایسا ہوتا کہ کوئی نہریا کسی قسم کا کواں ملے \*

کبھی کبھی چند خوفناک کابل بھی مل جاتے تھے جو اپنی ہندوؤں کو اسطور پر تیارے ہوئے تھے کہ معلوم ہوتا تھا کہ وہ ہملوگوں پر گولیاں چلانا چاہتے ہیں \*

بالآخر ہملوگ کابل اور اسکے خندقوں اور فصیل اور بالا حصار تک پہنچے - آبادی ساتھ ہزار ہے اسکے بازار میں فارس کے قافلے مغرب سے اور ہندوستانی تجارت مشرق سے اور بلوچی سودا بدخشان والے جنوب سے اسباب تجارت مہیا کرتے ہیں \*

## HINDI.

Translate into English :—

सड़क कन्धार जो ३०० मील के लगभग पहाड़ों की सुन्दर दरियों, बहते हुये पहाड़ी नालों, और हरिवारी चरियों के

बीच हो कर चली गई है । पर कहीं २ हन को घोड़े पर चढ़े एक दिन या दो दिन तक पहाड़ी और ऊसर देश हो कर मंज़िल मारना पड़ा था जहां पानी का नाम व निशान न था ॥

बहुत दिनों पर उस मुल्क की राजधानी कंधार के बाहर के बाग और बस्ती देख पड़े ॥ उस नगर की क़िलाबन्दी बड़ी सज़बूती के साथ की गई है कि वह तोपों से दुश्मन का हमला रोक रख सकता है ॥

फ़ारस की तिजारत हिन्दुस्थान को इसी नगर होकर जारी है क्योंकि बोलन पास नाम घाटी पर इसका अधि-कार है । और उस घाटी के हिन्दुस्थान की ओर शहर शिकारपुर बसा है ॥

कन्धार से काबुल को सड़क पहाड़ी मुल्क होकर चली गई है । रास्ता पथरी और खढ़बीहर है । पर पानी की कसती नहीं है । बीस मील तक चलते चलते एक न एक पहाड़ी नाला व कुआरा रास्ते में मिल ही जाता था । जहां कहीं कोई २ स्वरूप के भयानक काबुली हाथों में ऐसे तौर से बन्दूक लिये फिरते थे कि जान पड़ता था सानों हम पर चला ही तो देंगे ॥

निदान हम लोग काबुल को पहुंचे जहां खाई और जानसारू क़िला बालाहिस्तार है । बाशिन्दों की गिनती साठ हजार की है । उस के बाज़ार की जिनस पश्चिम से फ़ारस के बनजारे पहुंचाते हैं । पूरब से हिन्दुस्थान के और दक्खिन से बिलूचिस्तान के सौदागर पहुंचाते हैं ॥

## ARITHMETIC AND ALGEBRA.

J. GANNON, ESQ.

PANDIT LAKSHMI SHANKAR MISRA,

RAI BAHADUR.

} *Examiners.*

[N.B.—Great importance will be attached to accuracy in numerical results.]

1. Define "Notation," "Numeration"; and prove that "three times four" = "four times three."

2. Reduce to a single fraction:—

$$\frac{919\frac{2}{7}}{7\cdot954} + \frac{4\cdot100}{442\frac{3}{7}} + \frac{7}{11} \text{ of } \cdot07344.$$

3. The wine in a pipe when full is worth £19-9s.-9d. How much has leaked away if what is left is worth £9-16s.-7½d.?

4. In discounting a bill, what do you mean by "The Banker's profit"? If the Simple Interest on £923-18s.-1½d. amount to £17-9s.-3½d. exactly in 138 days, what is the rate of interest per cent. per annum?

5. Extract the square root of 99,980,001; and of 60½.

6. Define the following:—"term," "dimension of a term," "homogeneous terms."

7. Express in their simplest forms:—

$$(i) \left(1 - \frac{2xy}{x^2 + y^2}\right) \div \left(\frac{x^2 - y^2}{x - y} - 3xy\right).$$

$$(ii) (x - y + z) - (x + y - z) - (x + y + z)(x - y - z) - 4yz$$

8. State and prove the two lemmas on which the proof of the rule for finding the G. C. M. depends. Find the G. C. M. of—

$$x^3 - 2ax^2 - 5a^2x - 12a^3 \text{ and } x^3 - 7ax^2 + 13a^2x - 4a^3.$$

9. Solve:—

$$(i) \frac{x-\frac{1}{2}}{x-1} - \frac{2}{5} \left( \frac{1}{x-1} - \frac{1}{3} \right) = \frac{23}{10(x-1)}$$

$$(ii) \begin{aligned} (a+b)x + (a-b)y &= 2a \\ (a-b)x + (a+b)y &= 2a \end{aligned}$$

10. A farmer bought equal numbers of two kinds of sheep, one at £3 each, the other at £4 each. Had he expen-

ded his money equally in the two kinds, he would have had two more sheep than he had. How many did he buy?

11. Find the square root of:—

$$x^6 - 12x^5 + 60x^4 - 160x^3 - 240x^2 - 192x + 64.$$

## GEOMETRY AND MENSURATION.

A. W. WARD, ESQ.

BABU JADAB CHANDRA CHUCKERVERTY. } *Examiners.*

1. Give Euclid's definitions of a plane superficies, a plane angle, a rhombus, the angle of a segment, and the angle in a segment. Enunciate the 12th axiom of the First Book.

2. Prove that, on the same base and on the same side of it, there cannot be two triangles having their sides which are terminated at one extremity of the base equal, and likewise those which are terminated at the other extremity.

3. From two points P, Q, on the same side of a straight line AB, draw two straight lines meeting in AB and equally inclined to AB; show that the sum of these two straight lines is less than the sum of any two other straight lines joining P, Q, to a point in AB.

4. Prove that, if the square described on one of the sides of a triangle be equal to the square described on the other two sides of it, the angle contained by these two sides is a right angle.

5. Divide a given straight line into two parts, such that the rectangle contained by the whole and one of the parts, may be equal to the square on the other part.

6. A rectangle ABCD has a side AB produced to a point E, so that BE is equal to BC, show that the area of the rectangle is equal to one half the difference of the squares on AE and BD.

7. Prove that the angle at the centre of a circle is double of the angle at the circumference on the same base that is on the same arc.

8. Given the base, the area, and the vertical angle of a triangle; describe the triangle.

9. Describe an isosceles triangle having each of the angle at the base double of the third angle.

10. The sides of a triangle are 17, 15, and 8 inches respectively. Find the length of the straight line joining the middle point of 17 to the opposite angle.

11. A man observes the elevation of the top of a tower to be  $60^\circ$ . He then walks a distance of 300 ft., takes a turn of a right angle, and after walking 400 ft. more finds he is on the other side of the tower exactly opposite to his original position. The elevation of the tower is now found to be  $30^\circ$ . Find the height of the tower.

12. Find the least possible length of fencing that can include a triangular area of 10 sq. ft.

### ARABIC.—FIRST PAPER.

#### TEXT-BOOK AND GRAMMAR.

MAULVI SYED AMJAD ALI, M.A., *Examiner.*

1. Translate into English :—

جاء شاعر عند ملك بقصيدة بها يمدحه وقرأها بين يديه فلم يامر بجائزته له ورجع الشاعر خائباً خاسراً فبينما ان وقف علي الباب نادى نادماً حائراً ان خرج من القصر واحد من الملهمان مخبراً ان الملك اعطاني الان عقداً من الالاي الخالية لامرات راقصة يقال لهما خالصة فانشد الشاعر بلا روية - شجر -  
لقد ضاع شعري علي بابكم : كها ضاع در علي خالصة  
ولما انهي بالبيت الي الملك الشيعي - غضب و امر بضرب عنق الخصيخ - فقال الوزير قائماً خلف السرير - لا ينبغي للملوك امثال هذا الا بتقدير - فحين ما اسطرزة الملك وامر بانشاد ما انشد بين يديه وضع الوزير اصبعيه علي عينيه فتغرس الشاعر بالاحمال وفهم ما اراد الوزير وقال شجر  
لقد ضاع شعري علي بابكم : كها ضاع در علي خالصة - فاستسرو الملك و صفح عنه صفحا و امر له بصلصة فرجع فرحاً ثم سمع ظريف ما جري فاستظرت كثيراً وقال لم ارا عهني اذا قلعت  
عننا انقلب اصعباً

2. Write out singulars of plural, and plurals of singular substantives as used in the above extract and supply their English meanings.

3. Give English equivalents for the following, stating which of them are original Arabic and which simply Arabicized (مغرب), and in the latter case mention the original word so Arabicized.

اوربا - انكليز - بوسطة - باريس - كونت - شرطه -  
مجلس المشورة - ليرة - شلين - قرش - قائد الجيش -  
كاغذ الهال \*

4. Mention what you know of اشعب and of عرقوب

5. Define ثلاثي مجرد and mention the various ثلاثي مجرد that are in use and also those not in use, giving, at least, three instances of each of the former from various roots with their meanings.

6. State the various اعراب that the verbs undergo, also those that substantives undergo, and mention some of the several عوامل in each case, with instances of each.

7. Write out Arabic conjunctions (حروف عطف) with their meanings in English, and illustrate their usages by examples.

8. Translate into English:—

اذا قربت ساعة يالها \* وزلزلت الارض وزلزالها  
تسير الجبال علي سرعة \* كهر السحاب قري حالها  
وتغطر الارض من نغمة \* هذا لك تخرج افعالها  
ولا بد من سائل قائل \* من الناس يومئذ مالها  
تحدث اخبارها ربها \* وربك لاشك اوحى لها  
ويصدر كل الي موقف \* يقيم الكهول واطفالها  
قري النفس ماعلمت محضرا \* ولو ذرة كان مثقالها  
يحا سبها مالك قادر \* فاما عليها واما لها

9. Write out the سورة from قرآن شريف upon which the above extract is based. If you, however, do not exactly remember this سورة you may give another of nearly equal

extent, and in either case write as legibly as you can and supply all vowel marks.

10. Analyze the fifth couplet in No. 8 and account for the singular verb ارحى in the second hemistich of the same couplet.

## ARABIC.—SECOND PAPER.

MATULVI SYED AMJAD ALI, M.A., *Examiner.*

1. Translate into English :—

(الف) المدارس العمومية في بريطانيا العظمى يصرف عليها من نفقة الجمهور لتعليم الجمهور و يصرف الاعتناء الزائد علي تهذيب النساء حتي انه يحسب عارا عليهن ان لا يحرفن القراءة والكتابة - انه لما كانت العلوم مزهرة عند الحرب كان يوجد بينهم كثير من النساء الغاضلات و كان بعضهن مصنفات في اللغة العربية - و يباح للسيدات في بريطانيا العظمى بالخروج و حد هن و كذا هن في سائر البلاد الا فرنجية - الحرية مطلقة للاديان في بريطانيا العظمى و لكل واحد ان يعبد خالقه حسب ما يلهمه ضميره - الحكم الغالب في اوربا هو الملكي و الناس علي وجه العلوم مواظبون علي اشتغالهم \*

(ب) قال صاحب الفلاحة اذا لم يثمر شجرة من النخل ياخذ رجل فلسا و يقرب منها و يقول لغيره اني اريد قطع هذه الشجرة لانها لا تثمر فيقول الاخر لا تفعل فانها تثمر في هذه السنة فيقول الرجل انها لا تفعل شيئا و يضربها ضربتين او ثلثة فيمسكها الاخر بيده و يقول لا تفعل فانها شجرة حسنة و احبب عليها هذه السنة و ان لم تفعل فافعل ما بدا لك - قال و اذا فعل ذالك فان الشجرة تثمر ثمرها كثيرا و كذا لك غير النخل من الاشجار اذا فعل به هذا فانه يثمر - و قال ايضا اذا قاربت بين ذكران النخل و انا ثما فانها تكثر حملها لانها

تستأنس بالهجاورة و ربيها قطع الفها من الذكران فلا تجعل  
 شيئاً لفراقه و اذ اغرست الذكران وسط الاناث و هبت الريح  
 فخالطت الاناث رائحة طالع الذكران جعلت من تلك الرائحة  
 كل انثى حوله \*

2. Translate into Arabic, adding diacritical marks (حركات) to your translations :—

- (1) I shall be ready in four minutes.
- (2) You should now be in the school.
- (3) Your companions are already there.
- (4) Learn your lesson.
- (5) I have a great desire to learn the Arabic language.
- (6) Do you know his name ?
- (7) Do you understand ?
- (8) No, I don't understand.
- (9) I cannot hear you.
- (10) Write your (تثنية) name at the bottom.
- (11) Where are your (جمع) books ?
- (12) Where did you lay them ?
- (13) I cannot find my pen.
- (14) This pen will not write.
- (15) I cannot write with this pen.
- (16) Stand in your proper places.
- (17) Stand before me.
- (18) He has been absent four days.
- (19) The school opens at six o'clock.
- (20) It is shut at ten.
- (21) School closes at ten o'clock.
- (22) Go and wash your hands.
- (23) I wish I could speak like him.
- (24) Everybody understands him.
- (25) I have heard him speak.
- (26) I did not understand what they said.
- (27) He studies several hours at home.
- (28) Good morning.
- (29) How do you do ?
- (30) Very well, Sir, I thank you.



## PERSIAN.—FIRST PAPER.

MAULVI ABUDL JAMIL. } Examiners.  
MUNSHI RAM KISHEN. }

1. (a) Translate into English as literally as you can :—

روزے از فصل بہار ان با جمعے از دوستان و یاران بہرے  
گشت و تماشای صحرا و دشت بیرون رفتیم چون در موضع  
خرم جا گرم ساختیم و سفرۂ انداختیم سگے از دور آنرا دید  
زود خود را با آنجا رسانید۔ یکے از حاضران سنگ پارۂ برداشت  
و چنانکہ نان در پیش سگان اندازند پیش وے انداخت سگ  
آنرا بوے کرد و بے توقف باز گشت ہر چند آواز دادند التفات  
نکرد۔ اصحاب از آن متعجب شدند ۔ یکے از آن میان گفت می  
دانید کہ این سگ چہ گفت۔ کہ این بد بختان از بخیلی و  
گر سنگی سنگ میخورند از خوان ایشان چہ توقع توان  
داشت و از سفرۂ ایذان چہ تہتج توان گرفت \*

(b) Name the book from which the above extract is taken.  
Who wrote it? Mention other works by the same author.

2. (a) Translate into English :—

میفرمودند۔ ہر گاہ معنوی پیوند مجرد و مادی چنین (1)  
استوار باشد پیوستگی نفس ناطقہ را با ایزد بیہمال کہ  
تواند گرفت \*

نخستین پایہ بندگی آنست کہ هنگام ناملاکتم پیشانی (2)  
را بشکفج چین ندہد و آنرا تلخ داروے پزشکی اندیشیدہ  
بشگفتہ روئی در کشد \*

جہان صورت نمونہ عالم معنی است چنانچہ در آن ہر چہ (3)  
بسیارند باز خواهند درین نیز بہ اندازہ خرد کردار جویند  
بلاغت آن باشد کہ سخن بانداۂ فیوشندہ رود و بسیار (4)  
معنی را باندک عبارت چنان بر گذارد کہ در فرا گرفتن رنج  
نرود۔ و فصاحت آنکہ در گذارش زبان کج می نشود \*

(b). Frame sentences with the following phrases :—

دست بر فشاندن - دم در کشیدن - شب بروز آوردن -  
گردن افراختن - رخت بر بستن - بر پیشگاه دل تافتن \*

3. (a) Give examples to illustrate the various uses of از and تا.

(b) Give the exact force of the prefixes and suffixes in the following words :—

هزارز - نادرست - کوهسار - مرغزار - غمگین - توپچی -  
شاهوار - صندوقچه \*

4. (a). Explain clearly in Urdu :—

ساقی بنور بادہ بر افروز جام ما  
مطرب بگو کہ کار جہان شد بکام ما  
مادر پیدائے عکس رخ یار دیدہ ایم  
ای بیخبر ز لذت شرب مدام ما  
چندان بود کرشمہ و ناز سہی قدان  
کاید بجملہ سرو صندوق خرام ما  
ہرگز نہ پیرد آنکہ دلش زندہ شد بعشق  
ثبت است بر جریدہ عالم دوام ما

(b) What is meant by ساقی - بادہ - جام - مطرب -

5. (a) Explain fully in Persian :—

چیزیکہ رفت رفت مکن یاد او دیگر  
زیرا کہ تازہ کردن غم کار عقل نیست  
تا نقد روزگار ترا کم زبان شود  
بگذار زانکہ سود در ادبار عقل نسبت  
نہ نہ عقل عقل بیغمن زبای دل  
کاغبار غم کم است کہ ادبار عقل نیست  
مانند باغبان ہمہ بر گل کند نشاط  
ہر دل کہ خستگی وے از خار عقل نیست

(b) Define and مطالع - رباعي - قطاعی

6. Translate the following into English and explain in Persian the allusions contained therein :—

خدایا بذات خداوندیت \* بارصاف بے مثل و مانندیت  
به لبتیک حجاج بیت الحرام \* ببندفون یثرب علیہ السلام  
بطامعات پیبران آراستہ \* بصدق جوانان نو خاستہ  
کہ مارا دران ورطہ یک نفس \* ز ننگ دو گشتن بغریا درس

7. Give a short biography of سعدی and analyze the following :—

زخاک آفریدت خداوند پاک \* پس اے بندہ افتادگی کن چو خاک

### PERSIAN.—SECOND PAPER.

MAULVI SYED KALAN, M.A.

MUNSHI RAM KISHEN.

} Examiners.

1. Translate the following passages into English :—

(a) دزدے بخانہ رفت جوانے را خفته دید - پردہ کہ بر  
دوش داشت بگسترد - تا هرچه یابد دروے نہادہ بر دوش کشد -  
جوان بخلطید و در میان پردہ بخت - دزد هرچه گشت چیرے  
نیافت - چون ناکہ مراجعت کرد کہ پردہ را بردارد و بیرون  
رود جوان را دید کہ با ہیبت شیران و ہیئت دلبران در میان  
پردہ خفته - با خود گفت حالا مصلحت در آن است کہ ترک پردہ  
گویم تا پردہ از روے کار بر نیفتد - پردہ را بخانہ بگذاشت  
و از خانہ بیرون شد - جوان آواز داد کہ دزد در را بہ بند  
تاکس بخانہ نیاید - گفت بجان تو در نہ بندم زیرا کہ من  
زیر انداز تو آوردم باشد کہ دیگرے روے آنداز تو آورد \*

(b) مرد باید کہ در ہمہ حال بابذلای جنس آئین سلوک را  
بران نہج مرعی دارد کہ گرد ملال بر خاطر احدے نہ نشیند -  
مثلاً چون بہ مجلس بزرگے راہ یابد از پر گفتن و ہرزہ خندیدن و  
حرکات ناملائم نہودن و مردم گزیدن و سخن بگزات گفتن و از

اظهار احتیاج و خود ستائی و نهائی اجتناب نماید - و  
بهجاسے نخوانده نرود و نرانده برخیزد تا موجب ملال خاطرها  
نگردد \*

در تواریخ مسطور است کہ سلطان سکندر لودھی (c)  
بهجمال ظاہری آراسته بود و بکیمالات معنوی پیراسته۔ در ایام  
سلطنت او نہایت ارزانی و امن و امان حاصل بود۔ و بادشاہ  
ہر روز بار عام دادے و خود بذاد خواہی خلق رسیدے۔ و گاہ  
از صبح تا شام بل تا وقت خفتن بهعاملات مشغول بودے۔ در  
ایام سلطنت او دست تسلط زمینداران ہتد کوتاہ شد و ہبہ  
مطیع و فرمانبردار گشتند و قوی و ضعیف یکسان شدند۔ و در  
کارها انصاف ملحوظ داشتے و کمتر بر ہوائے نفیس رفتے و  
بغایت خدا ترس و بر خلق مہربان بود \*

2. Translate the following passage into Persian :—

Nádir remained at Delhi fifty-eight days. Before he quitted it he had a long secret conference with Muhammad Sháh, in which, it is supposed, he gave him such counsel as he deemed best to enable him to preserve that power to which he was restored. To all the nobles of the court he spoke publicly, and warned them to preserve their allegiance to the emperor. To those who were absent, he wrote in similar terms, and after desiring them to continue to walk in the path of duty, he informed them that he and Muhammad Sháh were so united in friendship, that they might be esteemed as having one soul in two bodies ; and he concluded "May God forbid, but if accounts of your rebelling against you emperor should reach our ears, we will blot you out of the pages of the book of creation."

3. Render into idiomatic Persian the following sentences :—

(a) In a wise man are to be found all the higher virtues, but in a fool none but vice : hence a wise man is to be preferred to a hundred fools.

(b) A wicked man is to be avoided, although he may have learning to recommend him. A serpent may have a gem in his head ; but is he not dangerous in spite of that ?

(c) The friend who injures a man in his absence, but flatters him to his face, is to be avoided as a vessel that has poison inside and milk at the mouth.

(d) The learned man's poverty is better than the ignorant man's wealth. The low caste of the learned is exalted above the high caste of the ignorant.

### SANSKRIT.—FIRST PAPER.

PANDIT ADITYA RAM BATTACHARYA, M.A., *Examiner.*

1. अस्ति मन्दरभिधाने पर्वते दुर्दान्तो नाम सिंहः । स च सर्वदा पशुबधं विदधान एवास्ते । ततः सर्वैः पशुभिर्निमित्त्वा सिंहो विज्ञप्तः । मृगेन्द्र किमिति सर्वपशूच्छेदः क्रियते । त्रयमेव भवदाहारार्थं प्रत्यहं एकैकं पशुं ढौकयामः । सिंहेनोक्तम् एव-  
मस्तु । ततः प्रभृत्येकैकं पशुं ददतः समासते । अथ कदाचिद्  
वृद्धशकस्य कस्यचिद् वारः समागतः । सोऽचिन्तयत ;

त्रासहेतोर्विनीतिस्तु क्रियते जीविताशया ।

पञ्चत्वञ्चेद् गमिष्यामि किं सिंहानुनयेन मे ॥

(a) Can you detect any operations of *Sandhi* in the above text and विदधान एव ? Account for the modifications.

(b) Change विदधान into its Parasmaipada corresponding form and give the क्त प्रत्ययान्त form of the same.

(c) Parse हस्तः and conjugate the root of समासते in लङ् (imperfect).

(d) Decline the base of the nominal component of the compound word प्रत्यहम्.

(e) Change सर्वैः पशुभिः सिंहो विज्ञप्तः ; किमिति सर्वपशूच्छेदः क्रियते into the active construction.

(f) Paraphrase (i.e., reproduce in simple prose) the *śloka* in the extract given above.

2. यदभावि न तद्भावि भावि चेन्न तदन्यथा ।

इति चिन्ताविषयोऽयमगदः किं न पीयते ॥

Paraphrase this *complet*, and change the construction of the second half into the active form.

3. हिरण्यक आह । द्विविधं वैरं भवति सहजं कृत्रिमञ्च ।

रायस आह भोःद्विविधस्य वैरस्य लक्षणं श्रोतुमिच्छामि ।

Answer the question put by the crow.

4. (1) पञ्च यत्र न विद्यन्ते तत्र वासं न कारयेत् ।

(2) अतिदाने बलिर्बहुः सर्वमत्यन्तगर्हितम् ॥

(a) Enumerate the persons and things to whom reference is made in extract (1).

(b) Parse कारयेत् ।

(c) Parse अतिदाने; and give the construction (अन्वय) of the sentence सर्वमत्यन्तगर्हितम् ।

(d) To what *Paurāṇika* legend does the statement बलिर्बहुः allude?

5. गुणिगणगणानारम्भे न पतति कठिनी सुसम्भवा यस्य ।

तेनाम्बा यदि सुतिनी वद वन्ध्या कीदृशी भवति ॥

मतिरेव बलाद् गरीयसी यदभावे करिणामियं दशा ।

इति घोषमतीव डिण्डिमः करिणी हस्तिपकाहतः क्षणम् ॥

(a) Reproduce in simple prose these two stanzas.

(b) Give the vocative singular of अम्बा ।

(c) Give the प्रकृति and प्रत्यय of the base of गरीयसी and decline it in the masculine gender.

6. आगतस्य गृहं त्यागस्तथैव शरणार्थिनः ।

याचमानस्य च बधो नृशंसे गर्हितो बुधैः ॥

कुर्यान्न निन्दितं कस्मै न नृशंसं कथंचन ।

इति पूर्वं महात्मान आपद्गुस्मविदो विदुः ॥

श्रेयांस्तुसहदारस्य विनाशोऽद्य मम स्वयम् ।

ब्राह्मणस्य बधं नाहमनुमस्ये कदाचन ॥

(a) Translate these *shlokas* into English.

(b) Analyze the *Sandhi* in श्रेयांस्तु and state rule.

(c) Expound the समास in सहदारस्य and give the alternative form that the compound can assume.

(d) Conjugate the root of अनुमस्ये in लट् (present.)

तां सत्यनानां दृढतीरशार्गलां  
 गृहीर्विचित्रैरुपशोभितां शिवाञ् ।  
 पुरीमयोध्यां नृसहस्रसंकुलां  
 शशास वै शक्रसमो नहीपतिः ॥

- (a) Reproduce the stanza in easy prose.  
 (b) Expound the समास of the underlined compounds.

SANSKRIT.—SECOND PAPER.

PANDIT ADITYA RAM BHATTACHARYA, M.A., Examiner.

1. Translate into English :—

उदेति सविता रक्ती रक्त एवास्तमेति च ।  
 सन्यत्ती च विपत्तौ च नद्धतामेकारूपता ॥  
 खलः सर्पपनात्राणि परच्छिद्वाणि पश्यति ।  
 आत्मनो विल्वनात्राणि पश्यन्नपि न पश्यति ॥  
 लाववं कर्मन्तामर्थ्यं स्वेय्यं क्लेशसहिष्णुता ।  
 दोषद्वयो ऽग्निदीप्तिश्च व्यायानादुपजायते ॥  
 त्वमेव नाता च पिता त्वमेव ।  
 त्वमेव वन्द्युश्च सखा त्वमेव ।  
 त्वमेव विद्याद्रविणं त्वमेव ।  
 त्वमेव सर्वं मम देवदेव ॥  
 सत् सङ्गाद् भवति हि साधुता खलानाम् ।  
 साधूनां न हि खलजङ्गमात् खलत्वम् ॥  
 येषां न विद्या न तपो न दानं  
 ज्ञानं न शीलं न गुणो न धर्मः ।  
 ते मृत्युलीके भुवि भारभूता  
 मनुष्यरूपेण मृगाश्चरन्ति ॥

Translate into Sanskrit :—

(a) He who leaves his bed early in the morning and takes a walk and breathes the pure air of the field grows healthy every day.

(b) Look here, the birds are sweetly singing on the trees; the bees are sipping honey in the flowers; the swans are sporting in the lake; and the boys are plucking flowers from the creepers.

(c) There stood a large banyan tree in a forest. Many birds had built their nests on it and dwelt there. A serpent lived there in a hole below. He would eat the young ones of the birds. Once said a crow to the birds, "Let us place pieces of meat near the hole of a mongoose and as far as the hole of the serpent. The mongoose will certainly go to the hole of the serpent and will kill him." This being done, the serpent was killed.

## HISTORY AND GEOGRAPHY.

T. W. ARNOLD, ESQ., B.A.

REV. A. E. JOHNSTONE.

BABU ABHAYA CHARAN SANYAL, M.A.

BABU SARAT CHANDRA MUKERJI, M.A.

*Examiners.*

1. (a) Upon what grounds did William of Normandy claim to be King of England?

(b) Show by a genealogical table the descent of the York and Lancastrian Kings and subsequent union of the two houses.

2. (a) Distinguish between an Impeachment and a Bill of Attainder, giving the first instance of each.

(b) When and in what manner was Calais acquired and lost by England?

(c) Give the origin of the Whig and Tory parties.

3. (a) Write a short narrative of the American War of Independence.

(b) State the main provisions of the Reform Bill of 1832.

4. (a) State clearly the final cause of the decline and fall of the Mogul Empire in India.

(b) When and how did the East India Company lose respectively its trading monopoly and its political powers?

5. (a) Narrate with date the circumstances of the Treaty of Bassein.



(b) Describe the acts for which Warren Hastings was impeached in Parliament.

6. (a) What were the results of the following battles:—Wandiwash, Assaye, Meeanee, Sobraon, Korygaum?

(b) State Lord Dalhousie's reasons for the policy of annexation, and name the states that successively fell victims to that policy.

7. (a) What are the stages by the Trans-Caucasian route from England to India?

(b) Name six large islands of the East Indian Archipelago.

What channel separates the Asian from the Australasian groups?

(c) Describe the government of Japan.

8. (a) What and where are the following:—Tangier, Congo, Sydney, Alleghanies, Plata?

(b) What are the chief places of interest in a voyage up the Nile?

(c) Mention the chief productions of the Australian colonies.

9. (a) How is the direction of the earth's rotation indicated at night?

(b) Why is it that cloudy nights are usually warmer than clear ones?

(c) Explain the formation of dew and icebergs.

10. (a) What is the origin of underground caverns?

(b) State four prominent facts about the sea.

(c) What are the evidences regarding the existence of great heat inside the earth, and what useful purpose does it serve in the economy of nature?

## ENTRANCE EXAMINATION, 1892.

### ENGLISH.—FIRST PAPER.

H. O. BUDDEN, ESQ.

M. CROSSE, ESQ., M.A.

W. C. HORST, ESQ.

} Examiners.

N. B.—Particular attention must be paid to neat writing and correct spelling.

1. Give the meaning of the following extracts:—

(a) There can be, I think, no more useful or more sacred task, than assisting in forming the moral and intellectual character of a new society. It is the surest and best kind of missionary labour. But in our colonial society every man has lived to and for himself, and the bonds of law and religion have been so little acknowledged as the great sanction and security of society,—that one shrinks from bringing up one's children, where they must in all human probability become lowered, not in rank or fortune, but in what is infinitely more important, in the intellectual and moral and religious standard by which their lives would be guided.

(b) In the promotion of a leader there is no reason to doubt that supremacy is almost unconsciously assumed by those endowed with vigour and courage, rather than from the accidental possession of greater bodily strength; and the devotion and loyalty which the herd evince to their leader is something very remarkable. This is more readily seen in the case of a tusker than any other, because in a herd he is generally the object of the keenest pursuit by the hunters. On such occasions the elephants do their utmost to protect him from danger.

2. Explain the following extracts:—

(a) None of us liveth to himself or dieth to himself.

(b) But like the skeleton at the feast

That warning timepiece never ceased—

“For ever-never!

Never-forever?”

What motion is represented by the words of the clock.

(c) Pompeii is the ghost of an extinct civilization rising up before us.

(d) But there is more in late repentant love

Than steel may keep suppressed.

What is the force of *may* here? In what other senses is it used?

(e) He looks the whole world in the face,

For he owes not any man.

(f) Spots made famous by the sword and pen

Till each one is a shrine.

(g) Greater he that ruleth his own spirit

Than he who taketh a city.

(h) I have ample means at my disposal, and will remunerate you for whatever trouble I may put you to.

(i) I am sure that the distinctions of moral breed are as natural and as just, as those of skin and of arbitrary caste are wrong and mischievous.

3. Give in simple prose the full meaning of the following stanzas:—

(a) With them I take delight in weal  
And seek relief in woe;  
And while I understand and feel  
How much to them I owe,  
My cheeks have often been bedewed  
With tears of thoughtful gratitude.

(b) Stern Daughter of the voice of God!  
O Duty! If that name thou love;  
Who art a light to guide, a rod  
To check the erring, and reprove;  
Thou who art victory and law  
When empty terrors overawe;  
From vain temptations dost set free,  
And calm'st the weary strife of frail humanity!

4. (a) What does the poet refer to in 3 (a) of the above question?  
Distinguish between *to understand* and *to feel*.  
What is the force of the prefix in *bedewed*?  
Explain the phrase *thoughtful gratitude*. What other kinds of gratitude can there be?

(b) What figures of speech are used in the second stanza above 3 (b)?

Point out and name the *subordinate* sentences in it.  
Parse the words, *duty*, *love*, *reprove*, *free*.

5. (a) "How blest must be the memory of those who, like the setting sun, have left a trail of light behind them, by which others may see their way to a worthy life and a powerful deed!"

What other similar illustrations (from a tree falling in the forest, the coral insect dying) does the writer give of the fact that we leave an influence behind us after we die?

(b) "This is the state of man: to-day he puts forth  
"The tender leaves of hope; to-morrow his own  
"And bears" &c.

Complete the figures as given in Shakespeare's lines. Whose words are these supposed to be, and what do they describe?

6. (a) Distinguish between the meanings of the following pair of words:—

There was no *sinful* or *criminal* action that he failed to commit.

The *deterioration* and *degeneration* of words.

*Falsehood* and *deceit* were banished.

This will test your *courage* and *fortitude*.

(b) Give the meanings of the following :—

Beau-ideal ; presence of mind ; catastrophe ; officious ; specious.

7. Give the meaning, in simple English, of the following extracts which are not in your prescribed course :—

(a) The first great crisis in Bacon's life was the sudden death of his father, which recalled him from France, and by depriving him of four-fifths of his expected fortune left him at eighteen to fight his own way in the world. He had always been intended for the bar ; he now began to study law in earnest. Not that he intended to be a lawyer only. He had already begun to see visions of philosophical and political reform, and his aim was to qualify himself for some public post which should provide him not only with a livelihood, but with leisure and influence—two things as necessary as meat and drink to the aspiring youth, who felt that he was “born for the service of mankind.”

(b) My hair is grey, but not with years,

Nor grew it white

In a single night

As man's have grown from sudden fears :

My limbs are bow'd, though not-with toil,

But rusted with a vile repose,

For they have been a dungeon's spoil ;

And mine has been the fate of those

To whom the goodly earth and air

Are bann'd and barr'd—forbidden fare ;

But this was for my father's faith,

I suffer'd chains and courted death.

# ENGLISH.—SECOND PAPER.

C. A. ANDREWS, ESQ., B.A. }

J. W. BACON, ESQ., B.A. }

T. W. ARNOLD, ESQ., }

*Examiners.*

1. (a) Give the plural forms of:—

Volcano, piano, grotto, mosquito, staff, distaff, major-general, commander-in-chief.

(b) What different meanings have the plural forms of the following words:—*custom, number, promise, minute?*

(c) Change into correct possessive forms, without altering the sense, the expressions in italics:—

(1) This horse *belongs to some one else*.

(2) The house *belonging to Charles Dickens* is burnt.

(3) He applied for *furlough for six months*.

(4) He paid the money *for the sake of conscience*.

2. (a) What change of meaning do the following words undergo when the annexed prepositions are added to them:—

Break—in,—out,—down.

Put—off,—out,—down.

(b) Explain the meaning of the following idiomatic expressions, and illustrate them by sentences of your own composing:—

From hand to mouth.—To beat about the bush.

To make good.—To pocket an insult.

To laugh in one's sleeve.—The way of the world.

3. Distinguish between the root and the stem of a word. Give the force of the prefixes or suffixes in the following words:—

Picturesque, misconduct, monarch, childish, uniform, withdraw, peninsula, sympathy, wholesome, manhood.

4. What are strong and weak Verbs? Give the preterite and Past Participle of—

*Smite, bid, swim, stay, rule.*

In the following sentences change the Verbs of the Active Voice to the Passive, and of the Passive to the Active, without materially altering the sense:—

(1) The cricket-match was played quickly.

(2) The teacher found fault with his pupil.

(3) You are said to have warned him in time.

(4) They refuse him permission.

(5) Having been once burnt, the child dreads the fire.

5. Correct the following sentences, and state the reason of your corrections:—

(1) He told, with regard to my idle habits, if you do not study, that how you will pass.

- (2) I shall come to Lucknow direct, but if I shall visit Cawnpore, it shall delay me two days.
- (3) Such students will be allowed to compete who have passed Entrance Examination.
- (4) Everyone of the students, except you and I, have failed.

6. (a) Convert the following passage from the direct to the indirect form of narration :—

“Hercules,” said the Goddess of Virtue, “I offer myself to you because I know you are descended from the gods, and that you have given proofs of that descent by your love of virtue. This makes me hope you will gain, both for yourself and me, an immortal reputation.

(b) Convert the following passage from the indirect to the direct form of narration :—

The Goddess of Pleasure advised Hercules to be her friend and to follow her. She would lead him into the possession of pleasure. His whole employment in her service would be to make his life easy. She begged him therefore to come with her to the region of delights, and to bid farewell for ever to care and pain.

### TRANSLATION.—URDU.

Translate into English :—

ایک بارہ سنگا کسی شغاف جھیل سے اپنی پیاس بجھاتے وقت اپنی سینکڑوں کی خوبصورتی پر جنکا عکس اُسے پانی میں دیکھا متعجب ہوا۔ مگر اسی وقت اپنی ٹانگوں کے نہایت پتلا پن کو دیکھ کر یہم بولا کہ ”کیا افسوس کا مقام ہی کہ ایسے خوبصورت جانور کو اس طرح کے بیہودہ اعضا دیئے جاویں! اگر میری ٹانگیں کسی قدر بھی میری سینکڑوں کے مناسب ہوتیں تو میں حقیقتاً کس قدر نفیس جانور ہوتا! وہ اپنے دل میں یہم کہہ رہا تھا کہ شکری کتنوں کی آواز سنکر سخت پریشان ہوا۔ وہ اسی وقت جنگل میں بھاگا اور اپنے پیچھا کرنیوالوں کو اتنا پیچھے چھوڑا کہ بچ ہی جاتا مگر بدنصیبی

سے اُسکی سیڈنگیں ایک پست درخت کی شاخوں میں پھس گئیں اور یہاں یہ قید ہو گیا یہاں تک کہ وہ شکاری کتے آپہنچے اور انہوں نے اُسکو بیمار کر تکرے تکرے کر دیئے۔ اپنے اخیر وقت میں وہ چلایا : ”میرے لوگ اپنے فوائد کی کس قدر ناقدری کرتے ہیں ! جن جانوروں کو میں نے ذلیل سمجھا تھا انہوں نے مجھکو بچا لیا دیا ہوتا اگر میری محبوب سیڈنگیں مجھکو دھوکے سے تباہی میں نہ ڈالتیں“ ۛ

### TRANSLATION.—HINDI.

Translate into English :—

एक बारहसिंगा किनी खच्च सरोवर में अपनी प्यास को बुझा रहा था कि उसने अपने सींगों की परछाईं जल में देखी। और उनकी सुन्दरता में मोहित हो गया। उसी समय अपने पैरों की पतलाई को देख बोला “कैसी दुःख की बात है कि ऐसे सुन्दर जन्तु को ये अव्यव्य अंग मिलें। जहाँ कैना उत्कृष्ट जन्तु में होजं यदि मेरे पैर मेरे सींगों के सरीरे होते।” अपने आप इन तरह बोलता ही रहा कि उसने शिकारी कुत्तों के भूकने का जव्द सुन पाया और डर गया। तुरन्त वन की ओर भागा। और पीछे दौड़ने वालों के आगे इतना ही गया कि बच गया होना। परन्तु दुर्भाग्यवश उसके सींग एक छोटे पेड़ के शाखों में फँस गये और वह लटक रहा जबलों कि शिकारी कुत्ते आ पहुँचे और उसको टुकड़े कर चीर डाले। बारहसिंगा अपने अन्तकाल के समय चिल्ला कर यों बोल उठा “हाय! इस अपने लाभकारी वस्तुओं को ठीक २ विचार नहीं कर सके।” जिन पैरों को मैं तुच्छ समझता था वे मुझे बचा ले जाते यदि मेरे घिस सींग गुप्त को धोखे में डाल कर मेरी सत्यानाश न करती ॥

## ARITHMETIC AND ALGEBRA.

PANDIT LAKSHMI SHANKAR MISRA, M.A.,  
 RAI BAHADUR.  
 MAHA MAHOPADHYAYA SUDHAKAR DUBE.  
 BABU JADAB CHANDRA CHAKRAVARTY, M.A. } *Examiners.*

1. How is a fraction affected by adding the same number to the numerator and the denominator?

Prove that  $\frac{3+4}{4+5}$  is greater than  $\frac{3}{4}$  and less than  $\frac{4}{5}$ .

2. (a) Divide  $\frac{1}{3} \left[ 3 + \frac{1}{3} \left\{ 3 + \frac{1}{3} (3 + 1\frac{1}{2}) \right\} \right]$  by 125.

(b) Reduce  $\frac{1744}{1532}$  and  $\frac{1526}{5232}$  to their lowest terms and express their difference as a decimal.

3. Forty men finish a piece of work in 40 days; if 5 men leave the work after every tenth day, in what time will the whole work be completed?

4. Find the difference between the Simple Interest and Discount of £330 in 4 years at  $2\frac{1}{2}$  per cent. per annum.

5. Extract the square root of  $\frac{1000 \cdot 2001}{1000}$ .

6. Find the value of  $\frac{x+2a}{x-2a} + \frac{x+2b}{x-2b}$  when  $x = \frac{4ab}{a+b}$ .

7. (a) Find the H. C. F. of  $x^3 - x^2 - 8x + 12$  and  $3x^2 - 2x -$

(b) Extract the square root of  $\left(x + \frac{1}{x}\right)^2 - 4\left(x - \frac{1}{x}\right)$ .

8. Simplify:—

$$\frac{a(a+1)+1}{(a-b)(a-c)} + \frac{b(b+1)+1}{(b-a)(b-c)} + \frac{c(c+1)+1}{(c-a)(c-b)}$$

9. Solve the following equation:—

$$(i) \frac{(x+a)(x+b)}{x+a+b} = \frac{(x+c)(x+d)}{x+c+d}$$

$$(ii) \frac{m}{x} + \frac{n}{y} = a; \frac{n}{x} + \frac{m}{y} = b.$$

10. If  $a : b :: c : d$  prove that  $\frac{2a+3b}{4a+5b} = \frac{2c+3d}{4c+5d}$ .





في غير وقت الزيارة ولا يستغيثون منه ولا يتعرضون لها ياتيه  
قلوب رارة مثلاً مضطجعا علي قارعة الطريق لم يسألوه لاي سبب  
تفعل ذاك بل ربها حسبوا ان اهل بلاده جميعا يضطجعون  
مثله وان في ذاك مصلحة لهم و اذا زارك احدهم و رآه  
عندك مثلاً امرأة او نساء لم يهجمه ان يسالك عن سبب زيارتهن  
مها لابد منه في بلاده و كذا لو راوك تماشي امرأة في الطريق  
او تخاضرها فكل منهم مشغول بهمة و مهيموم بشغله \*

2. Write with diacritical marks and translate the following:—

صلي اعرابي مع قوم فقراً الامام قل ارعيتهم ان اهلكني الله و  
من معي فقال الاعرابي اهلك الله وحدك اي شي كان من الدين  
معك فقطع القوم الصلوة من شدة الضحك \*

3. Give the تالي مجرد صيغة ماضي of—

مقاديير - تمائيل - مسائل - فريه - فريضة - جديد - مستغاد -  
عبيد - يكيده - خهاد - ملتقي - غفران - رضوان - دلائل -  
موات - ضحائف - منشار - ذباب - امتحان - مستهسكان \*

4. Give some of the meanings in which تفعليل is issued and illustrate your answer with examples.

5. Enumerate the حروف مشبهة بالفعل and explain why they are termed مشبهة بالفعل.

6. Give the second person singular feminine-imperative mood (صيغة واحد مؤنث حاضر امر) of—

زينت - وزن يخفون - تعسر - دحرجه - ادهيهام - تقي -  
ساقى - مواكلة - تصحيح \*

7. Translate into English and explain allusion or allusions contained therein:—

اذا كنت في نعمة فارعها \* فان الهعاصي تزيل النعم  
و حافظ عليها بشكر الاله \* فان الاله شديد النقم  
فاين القرون و من حولهم \* تغاثوا جميعا وربي الحكم

وكن موسرا شيت او مسرا \* فيها تفتح العيش الا بهم  
 حلاوة دنياك مسومة \* فلا تاكل الشهد الا بسم  
 معامد دنياك مدمومة \* فلا تكسب العبد الا بدم  
 اذا تم امرنا نغلة \* تفتح زوالا اذا قيل تم  
 وكم قدر دب في غفلة \* فلم يشعرا الناس حتي هجم  
 8. Translate into English: and name the author:—

لا يعلم الغيب احد \* لا يدفع الموت رصد  
 لكل شغل رجل \* لكل قوم عمل  
 طعارة الاخلاق \* من كرم الاعراق  
 الحر عبد ان طمع \* والعبد حر ان قنع  
 ما كل قول يسبح \* ما كل نصيح ينهج

### ARABIC.—SECOND PAPER.

MAULVI SYED KARAMAT HUSAIN, } Examiner.  
 BARRISTER-AT-LAW.

1. Translate into Arabic and give vowel marks to your translation:—

I will go to that school to-morrow morning. Please to give me that book. Open your book. Where shall I begin? That is a hard word. This is very easy. Do not read so loud. You read too low. Begin at the second page, fourth line. All praise are due to God, Lord of the Day of judgment. There we worship and from There we ask help. Lead us to the right path. Can you speak Arabic? I can speak a little. I can read better than I can speak. I do not know it yet. Few read Arabic well.

2. Translate into English. —

فلما فرغ السند بان الحبال من شعر و نظمه اراد ان يجعل  
 حبلته و يسير ان قد طلع عليه من ذاك الباب غلام صغير  
 السن فقبض علي يد الحبال و قال له ادخل كلم سيدي فانه  
 يدعوك فدخل الحبال مع الغلام البيت فاذن له صاحب المكان

بالجلوس ثم انه قدم له شيئاً من انواع الطعام فتقدم السند باد  
الجهال و اكل حتي شبع و قال العهد لك علي كل حال ثم انه  
غسل يديه و شكر صاحب المكان علي ذلك فقال صاحب المكان  
مرحباً بك و فهارك مبارك فيها يكون اسمك \*

3. Translate into Arabic:—

(1) Now the Lord had said unto Abraham,—Get thee out of thy country and from thy kindred and from thy father's unto a land that I will shew thee.

(2) And I will make of thee a great nation, and I will bless thee, and make thy name-great, and thou shalt be a blessing.

4. Translate into English:—

اذ جاء العيين لم يبق اذن و لا عين - سلطان بلا عدل كنهز  
بلا ماء - شخص بلا ادب كجسد بلا روح - الدال علي الخير  
كفاعله - لا يشكر الله من لا يشكر الناس - الوحدة خير من  
جليس السوء - عدو عاقل خير من صديق جاهل - الصبر مفتاح  
الفرج - من يفعل الخيرات الله يشكرها - رأس الخطايا الحرس -  
حب الدنيا والهمال رأس كل خطيئة - حال الاجل دون الامل -  
الجاهل عدو نفسه فكيف يكون صديق غيره - الشر قلبيله كثير -  
ان جئتنا جئنا اليك - ذهبتم الي المسجد - تذهب راكبين الي  
خالد - قعدت في المسجد - قعد زيد في السوق - انا قاعد علي  
الكروسي - تكبر زيد - حررت هذا الكتاب - اذا طلعت الشمس  
لاح الصبح - تقاتل رشيد و خالد - قاتل زيد بكرا - انقطع  
الهاء - تلاقى زيد و عمرو - ان تكرمني اكرمك - ان اهدتني  
اهدتك - اكتسب زيد مالا - اجلس ايها الحبيب - امس جئت  
اليكم - لا تشرك بالله - ان الشوك لظلم عظيم - لا تذهب من  
هنا - اجلس حيثما اجلس - جاء الولد باكيما - جلست عند

## PERSIAN.—FIRST PAPER.

MAULVI SYED KARAMAT HUSAIN,  
BARRISTER-AT-LAW,  
MAULVI SYED KALAN, M. A.

*Examiners.*

1. Translate the following into English and give the moral of the Fable in your own Persian:—

این حکایت شنو که در بغداد رایت و پرده را خلاص افتاد  
رایت از رنج راز و گرد رکاب گفت با پرده از طریق عتاب  
من و تو هر دو خواجه تاشانیم بنده بارگاه سلطان نیم  
من ز خدمت دی زبیا سودم گاه و بیگاه در سفر بودم  
تو نه رنج آزوده نه حصار نه بیابان و راه و گرد و غبار  
قدم من بسعی پیشتر است بس چرا قربت تو بیشتر است  
تو بر بندگان مد روئی با کنیزان یا سهن بوئی  
من قناده بدست شاگردان بسفر پای بند و سرگردان  
گفت من سر بر آستان دارم نه چو تو سر بر آسمان دارم  
هر که بپروده گردن افرازد کس نیاید بجنگ افتاده  
سعدی افقاده است و آزاده کس نیاید بجنگ افتاده

2. (a) Give the original and transferred sense of the following:—  
(b) What word or words are understood before and after the word *سوار* in the above extract?  
(c) Analyze the last but one couplet in the above extract according to the Persian Grammar.

3. Translate into English the following:—

موری دیدند بزور مندی کبر بسته و ملخی را ده برابر  
خود برداشته بتعجب گشتند این مور را بینید که باین  
ناتوانی باری را باین گرانی چون میکشد - مور چون این  
سخن بشنید بخندید و گفت مردان بار را به نیروی همت و

بازوي جمعيت كشيده اند نه بقوت تن و صحت بدن  
\* قطعه \*

باري كه آسمان و زمين سر كشد از آن  
مشكل توان بياوري جسم و جان كشيده  
هبت قوي كن از مدد رهروان عشق  
كان بار را بقوت هبت توان كشيده

4. (a) How do the phrases *ده برابر خرده* and *باين گراني* in the above extract stand, grammatically.

(b) What is meant by the phrase *رهروان عشق* and how?

(c) Mention the allusion referred to in the above *قطعه*.

5. Give the English meanings of the following and mention as many Persian words or phrases as give the same meaning:—

بيچ بيچ , تيز , سنگ پشت , شاعر , پنج پايد , گره خوردن

6. Explain how you get the date of accession of Jehangir to throne from the following couplet—

سال جلوس شاهي تاريخ شد چو بنهاد  
اقتبال سر به پاى صاحبقران ثاني

7. Translate into English the following:—

فرزند عاليجناب باظهار جاسوسان معلوم شد كه شاهراه از  
بهار پور تا خجسته بنديك خالي از مخاطره نيست قطاع  
الطريقان مال بيوپاريان و مسافرين بغارت ميبرند و مترودين  
با منيت نميتوانند آمد و رفت نمود هرگاه در قرب لشكر ما و  
شها اين حال بوده باشد واي به حال طرق دور دست معلوم  
ميشود كه منهيان اخبار معتبر بآن فرزند نميبرسانند از آنجا كه  
غفلت و بے پروائي خلاف طريق رياست و جهانبنائي است كاتبان  
جديد بنهديد تجبين نهايند و عيله و فعله پيشين را بسزاسانند  
و فوجي مستعد مقرر سازند كه استيصال مفسدان از بيخ و

گوده شاهراء از شر جماعت حراميان پاک سازند ننگ بد  
عليه تاكي گوارا توان کرد

۞ بیت ۞

من نهیگویم زبان کن یا بفکر سود باش  
ای ز فرصت بے خبر در هرچه باشی زود باش

8. Translate the following into English:—

یوسف گم گشته باز آید بکنعان غم مخور  
کبله احزان شود روزی گلستان غم مخور  
این دل غمیده حالش به شود دل بد مکن  
وین سر شوریده باز آید بسامان غم مخور  
هان مشو نو مید چون واقف نه ز سرار غیب  
باشد اندر پرده بازیهای پنهان غم مخور  
در بیابان گر بشوق کعبه خواهی زد قدم  
سرزنشها گر کند خار مخیلان غم مخور  
ایدل از سیل فنا بنیاد هستی بر کند  
چون ترانوح است کشتیمان ز طوفان غم مخور

9. Explain the above in Persian, elucidating the allusions contained therein.

10. Write out, from memory, a dozen Persian couplets, translate them into English and refer them to their author or authors as the case may be.

11. Explain the following and write out what you know of جعفر طیار:—

گر کاخ نه رواق زر اندودت آرزو است  
زین پنج پا برون نه وزین چار در گذر  
دار غرور نیست مقام قرار تو  
منصور وار از سر این دار در گذر  
با مار بهر مهره کسی دوستی نکرد  
بر کن طمع ز مهره و از مار در گذر  
چون میتوان بگلشن روحانیان رسید

سعی نہا و زین رہ پر خار در گذر  
ابن یہین نشیمن قدس است جاے تو  
زین آشیان چو جعفر طیار در گذر

PERSIAN.—SECOND PAPER.

MUALVI ZAKAULLAH, KHAN BAHABUR,  
SAMSULULAMA.  
PANDIT BISHAMBAR NATH.

Examiners.

1. Translate the following into English :—

در اخبار آمدہ کہ سلطان مصر با پادشاہ روم طرح مواصلت  
انداختہ دختر اورا از پسر خود خطبہ کرد و ہم دختر خود  
را در عقد پسروے در آورد۔ بنسبب این وصلت رسل و رسائل  
از جانبین متواصل گشت۔ و باتفاق این دو صاحب دولت هر  
دو مملکت بایکدیگر آراستگی پذیرفت۔ و در امور کلی و جزئی  
مراجعت برائے یکدیگر کردند و بے مشورت باہمی هیچ مہم  
شروع فرمودند۔ روزی ملک مصر بقیصر روم پیغام فرستاد  
کہ پسران زندہ حیات و عمدہ ژندگانی اند و نام ما بعد از  
وفات جز بحیات ایشان باقی نہی ماند۔ \* بیت \*

زندہ است کسی کہ در دیار ش \* ماند خلفی بیاد گارش  
پس ہمت بر انتظام حال و فراغ بال ایشان مصروف باید داشت  
و عنان عنایت بصوب جمعیت و وسعت معیشت ایشان معطوف  
باید ساخت۔ و من بجمہت پسر خود چندین ذخایر و نغایس  
و بردہ و سطور و ضیاع و عقار مہیا کردہ ام۔ از آن طرف رائے  
جہان آراءے آن حضرت در حسن اہتمام بحال پسر خود چہ  
اقتضا فرمودہ است۔ چون این پیغام بسوچ قیصر رسید بتبسہ  
فرمودہ گفت۔ مال یار بے وفا و محبوب نا پایدار است ازو  
حسابی نباید گرفت و بہتاع فانی دنیاے دنی فریفته نباید  
شد۔ من پسر خود را بحلیہ ادب بیاراستہ ام و خوانہاے مکارم



اخلاق برائے او ذخیرۂ فہادۂ ام- سال در محرض فدا و زوال  
است و ادب ایمن از تخیل انتقال- چون این خبر بہلک عرب  
رسید گفت راست میگوید۔

انشکوت چون این مکتوب بر خواندہ بواسطی راہوار بر  
نشستہ شتاب کزان بہ تبریز آمد۔ و درشش ساعتی شب یازدہم  
شوال بدر سرای سلطان ناصرالدین شاہ حاضر شدہ۔ و بدستیاری  
دربان و حاجب محروض داشت۔ کہ مرا امری واجب افتاد کہ  
درین نیم شب خویشتن را بدین رنج و تعب انداختہ و تا بدین  
جا تاختہ ام۔ لاجرم شاہنشاه اجازت کرد۔ تا حاضر پیشگاه شد۔  
پس مجلس را از بیگانہ بہ پرداخت۔ و انشکوت مضہون نامہ  
را مکتوف ساخت۔ شاہنشاه ایرا کہ آیت یزدان بود چون کوی  
برجائے ہیچ آشفند راے نگشت و انشکوت را رخصت انصرا  
داد۔ و از پس آن کس بطلمب میراز افضل اللہ و نصیر الہلک  
کہ این ہنگام منصب وزارت داشت فرستاد۔ و او را حاضر کردہ  
قصہ این غائلہ را با او حدیث کرد۔ نصیر الہلک از اصغای این  
خبر پائے از سر ندانست۔ ہمہی خواست دیوانہ شود۔ و اگر نہ  
از ہوش بیگانہ گردد۔ شاہنشاه بانگ بر آورد کہ با خویش  
باش و رای خویش تیرہ مکن۔ این ہنری نباشد۔ مرد عاقل  
آنست کہ در مہالک پر آفت و مسالک مخافت عقل خویش  
را پریشیدہ نسازد و از طریق حزم و رویت بچارہ پردازد۔

2. Translate the following into Persian:—

He had a garden, filled with the choicest flowers ; and to cultivate it was his favourite amusement. It happened that the cattle of the adjoining pasture had broken down the fence ; and he found them trampling upon and destroying a bed of fine flowers.

He could not drive these ravagers away, without endangering the still more valuable productions of the next garden ; and he hastened to request the assistance of the gardener. You "intend to make a fool of me" said the man, who refused to go, as he gave no credit to the tale of Mendaculus.

One frosty-day his father had the misfortune to be thrown from his horse, and to fracture his thigh. Mendaculus was present, and was deeply affected by the accident, but had not strength sufficient to afford the necessary help ; he was therefore obliged to leave him in this painful condition on the ground, which was at that time covered with snow ; and with all the haste in his power he rode to the nearest village, to solicit the aid of the first benevolent person he should meet.

His character, as a liar, was generally known : few to whom he applied paid attention to his story ; and no one believed it. After losing much time in fruitless entreaties he returned with a sorrowful heart, and with his eyes bathed in tears, to the place where the accident happened.

### SANSKRIT.—FIRST PAPER.

PANDIT ADITYA RAM BHATTACHARYA, M.A., *Examiner*.

1. Explain :—

- (a) प्राक् पादयोः पतति खादति पृष्ठसांसं  
कर्णे कलं किमपि रौति शनैर्विचित्रम् ।  
छिद्रं निरूप्य सहसा प्रविशत्यशङ्कः  
सर्वं खलस्य चरितं सशकः करोति ॥
- (b) अपि संपूर्णतायुक्तैः कर्तव्याः सुहृदो बुधैः ।  
नदीशः परिपूर्णोऽपि चन्द्रोदयसुदीक्षते ॥
- (c) क्षते महारा निपतन्त्यभीक्ष्णं  
धनक्षये दीव्यति जाठराग्निः ।

## आपत्सु वैराणि समुल्लसन्ति च्छिद्रेष्वनर्था बहुलीभवन्ति ॥

2. (a) Conjugate the root of पतति and खादति in लिट् and of ईक्षते and दीव्यति in जङ्.

(b) Decline the base of सुहृद् and आपत्सु in all the cases.

(c) In the extracts the *visarga* has in some places undergone transformation and in other places remained unchanged. Account for it in each case.

(d) How do you form the expression बहुलीभवन्ति ?

3. अस्ति दाक्षिणात्ये जनपदे सहिलारोप्यं नाम नगरम् । तस्य नातिदूरस्यो महोच्छ्रायवान् नानाविहङ्गोपभुक्तफलः कीटैरावृतकोटरश्चायाशवासितपथिकजनसमूहो न्यग्रोधपादपो महान् ॥

(a) Expound the *Bahubrihisamasa* in the above extract.

(b) In what cases do the declension of महोच्छ्रायवान् and महान् differ ?

(c) Conjugate the root of अस्ति in जङ् and लिट्.

4. Translate into English or Hindi :—

एवं तस्य प्रवदत आकर्णपूरितगराशनी लुव्यकोऽप्युपागत । तं दृष्ट्वा स्रूपकेण तस्य स्नायुपाशस्तत्तन्नात् सगिडतः । अत्रान्तरे चित्राङ्गः सत्वरं पृष्ठमवलोकयन् प्रधायितः । लघुपतनको वृक्षमारूढः । हिरण्यकश्च समीपवर्ति विलं प्रविष्टः । अथासौ लुव्यको मृगगमनाद् विषण्णवदनो व्यर्थशमस्तं मन्यरकं मन्दं मन्दं स्थलमध्ये गच्छन्तं दृष्टवान् । अचिन्तयच्च । यद्यपि कुरङ्गो धात्रापहतस्तथापि अयं क्रूर्म आहारार्थं सम्पादितः । तदस्याभिप्रेत मे कुटुम्बस्याहारनिर्घृतभविष्यति । एवं विचिन्त्य तं दर्भैः सञ्छाद्य धनुषि सनारोप्य स्कन्धे कृत्वा गृहं प्रस्थितः ॥

5. (a) Change the construction of the sentence मूषकेण स्नायुपाशः खण्डितः into the active and of लुब्धको मन्थरकं दृष्टवान् into the passive.

(b) Use finite verbs for the following participles : खण्डितः, आरूढः, प्रविष्टः, दृष्टवान्, अपहृतः, प्रस्थितः

6. Explain :—

संहतिः श्रेयसी पुंसां स्वकुलैः स्वल्पकैरपि ।  
तुषेणापि परित्यक्ता न प्ररोहन्ति तण्डुलाः ॥  
अधोऽधः पश्यतः कस्य सहिमा नोपजायते ।  
उपर्युपरि पश्यन्तः सर्व एव दरिद्रति ॥

7. Render into easy Sanskrit prose the following :—

कोसलो नाम सुदितः स्फीतो जनपदो महान् ।  
निविष्टः सरयूतीरे प्रभूतधनधान्यवान् ॥  
अयोध्या नाम नगरी तत्रासील्लोकविश्रुता ।  
मनुना मानवेन्द्रेण या पुरी निर्मिता स्वयम् ॥  
आयता दश च द्वे च भोजनानि महापुरी ।  
श्रीमती त्रीणि विस्तीर्णा सुविभक्तं महापथा ॥  
राजमार्गेण सहता सुविभक्तेन शोभिता ।  
मुक्तपुष्पावकीर्णेन जलसिक्तेन नित्यशः ॥

### SANSKRIT.—SECOND PAPER.

PANDIT ADITYA RAM BHATTACHARYA, M.A., *Examiner.*

1. Translate into Sanskrit :—

(a) God maketh the sun to rise on the evil and on the good ; and sendeth rain on the just and on the unjust.

(b) When thou givest alms to the poor let not thy left hand know what thy right hand giveth.

(c) For where your wealth is there will your heart be also.

(d) Once upon a time some boys were playing near a pond. Seeing many frogs in the water they began to throw stones at them. Some of the frogs were killed and some were hurt. Where-

upon one of the frogs cried out "O boys, it may be sport to you, but it is death to us."

2. Translate into English:—

(a) अकर्तव्यं न कर्तव्यं प्राणैः कण्ठगतैरपि ।

कर्तव्यमेव कर्तव्यमिति वेदविदो विदुः ॥

(b) कृते विश्वहिते देवो विश्वेशः परमेश्वरः ।

भगवान् भवति प्रीतो यतो विश्वं तदाश्रितम् ॥

(c) शशिना च निशा निशया च शशी

शशिना निशया च विभाति नभः ।

पयसा कमलं कमलेन पयः

पयसा कमलेन विभाति सरः ॥

(d) एकदा द्वे मित्रे पथि गच्छतः स्म । अथ भल्लूककस्तत्र  
समाययौ । ततो भल्लूकं दृष्ट्वा तयोरेकः सहचरः प्राणभयात्  
पलायमानः तरुमारुरोह । द्वितीयस्तु उपायमदृष्ट्वा मृतवत्  
भूमौ पपात । अथ भल्लूकः समीपमागत्य तस्य मुखनासा  
श्रवणादीनि चाग्राय तं मृतं विनिश्चित्य प्रतस्थे । सद्य गते  
भल्लूके वृक्षादवतीर्य वन्धुरपृच्छत् । सखे भल्लूकः किमुक्ता  
गतः । स प्राह । भल्लूकेनोक्तं यो हि विपदि मित्रं मुञ्चति  
कदापि न विश्वसनीय इति ॥

## HISTORY.

C. H. LINTON, Esq., M.A. }

B. MUTTI, Esq., }

F. G. HOUSDEN, Esq., M.A. }

*Examiners.*

1. Give some account of the customs of the English settlers in Britain. Point out what the English gained from their conversion to Christianity.

2. What led to the Barons' War in the reign of Henry III? What were the results of that war? Mention the principal events of the reigns of King John and Edward I.

3. Explain the growth of royal power in the time of the Tudors. State briefly what you know of the dissolution of the monasteries in the reign of Henry VIII. What was the new spirit that marked the reign of Elizabeth?

4. Give some account of the war of the Spanish succession and of the Seven Years' War.

5. (a) Write short historical notes on the following :—Ship-money ; Habeas Corpus Act ; Petition of Right ; Whig and Tory ; Provisions of Oxford ; Reform Bill (1832).

(b) State what you know of Oliver Cromwell ; John Wiclif ; Sir Robert Walpole ; Lord North.

6. Give a brief account of the invasions of Mahmud of Ghazni. Mention briefly the principal events of the reign of Aurangzeb. Contrast his general policy with that of Akbar.

7. State what you know of the Rajputs, Mahrattas, and Sikhs. Give a brief account of the Sikh wars. State the final results of those wars.

8. Mention the principal measures of Lord William Bentinck's and Lord Dalhousie's administrations.

9. For what are the following men known in history :—Abul Fazl ; Todar Mall ; Warren Hastings ; Lord Clive ; Sir Colin Campbell.

## GEOGRAPHY.

B. D. GORDON, ESQ.,

REV. H. M. M. HACKETT, M.A.

BABU MADHU SUDAN, MUKERJI.

} *Examiners.*

1. *Distinguish between a lake and a lagoon ;—the bed and the basin of a river ;—continental and oceanic island ;—aqueous and igneous rocks ; waves and currents of the sea ;—anavalanche and a glacier ;—the flora and the fauna of a country.*

2. *What are the principal causes which influence the climate of a country ? On what is weather dependent ? What are isothermal lines ? And what isobars ?*

3. *What and where are the following :—Abu, Baltoro, Canary, Douro, Elburz, Formosa, Gobi, Honolulu, Indiana, Jelalabad, Kilanea, Liberia, Manipur, Negrais, Omsk, Panama, Quillimanc, Ranchi, St. Gothard, Tokio, Yucatan ?*

4. *Briefly describe any five of the following :—*

The Suez Canal, the Great Pamir, the Himalaya Mountains, New Zealand, Lake Victoria Nyanza, the Falls of Niagara, the Pampas of South America.

5. Draw a *Map of India* showing its chief *mountains, rivers, seaports, and inland towns.*

6. Draw a *Map of Africa* showing the territories respectively under British, French, German, Portuguese, Italian, Belgian, Turkish, and Spanish influence.

7. What country is called the *Land of the Rising Sun*? Give a *social sketch* of its *people.*

8. Name in order and briefly describe the chief *places of interest* which a coasting vessel would pass in proceeding from *Shanghai* to *Aden.*

9. *Over what parts of the globe are the following useful commercial products distributed :—*Coal, cocoa, cotton, iron, petroleum, salt and silk?

## ENTRANCE EXAMINATION, 1893.

### ENGLISH.—FIRST PAPER.

W. C. HORTS, ESQUIRE, *Examiner.*

I. Write out the following passages in prose; be brief; use the simplest language you can; bring out the meaning fully; and explain each metaphor and allusion :—

(a) Had our lives been spared, I might gradually have weaned myself from the tenets of my own faith and inclined to thine; but in this last hour it were a craven thing, and a base, to yield to lusty terror what should only be the result of lengthened meditation. Were I to embrace thy creed, and cast down my forefather's gods, should I not be bribed by thy promise of heaven, or awed by the threats of hell? Olinthus, No! *think* we of each other with equal charity,—I honouring thy sincerity,—*thou* pitying my blindness, or my obdurate courage.

(b) O blithe new-comer! I have heard,  
I hear thee and rejoice;  
O cuckoo! shall I call thee bird,  
Or *but* a wandering voice?  
While I am lying on the grass,  
Thy two-fold shout I hear;

From hill to hill it seems to pass  
At once far off and near.

- (c) From town to town, from tower to tower;  
The red rose is a gladsome flower.  
Her thirty *years* of winter past,  
The red rose is revived at last;  
She lifts her head for endless spring,  
For ever lasting blossoming.  
Both roses flourish, Red and White,  
In love and sisterly delight.  
The two that were at strife are blended;  
And all old troubles now are ended.

(d) My youngest son, and now my only care, when he was eighteen years of age, began to be inquisitive after his mother and his brother; and often importuned me that he might take his attendant, the young slave who had also lost his brother, and go in search of them; at length I unwillingly gave consent, for, though I anxiously desired to hear tidings of my wife and eldest son, yet in sending my younger one to find them, I hazarded the loss of him also.

II. Express as clearly as you can what the following extracts mean:—

- (1) Charity is the salt of riches.
- (2) In thier conversation, which was long and sprightly, he discovered nothing of *the barbarian*.
- (3) There was a manhood in his look,  
That murder could not kill.
- (4) Beneath the glistening wave the god of day,  
Had now five times withdrawn the parting ray,
- (5) The groves were God's first temples.
- (6) In Persia, the great hot-bed of lies and intrigue, a man who does not tell a lie is indeed a phenomenon.
- (7) He hath brought many captives home to Rome,  
Whose ransoms did the general coffers fill.
- (8) I was in my fifteenth year when I built these castles.
- (9) What are ye, monarchs, laurelled heroes, say,  
But *Atnas* of the suffering world ye sway?
- (10) Sloth, like rust, consumes faster than labour wears,  
While the used key is always bright.

III. Parse the words that are italicised in questions I. and II.



IV. How do the lapse of time and the flow of rivers resemble each other, and how do they differ? What lesson is the story of "Prence Azgid and the Lions" intended to teach? What is the difference between fame and true honour?

V. Write down the meaning of the following words:—*cascade*, *trite*, *careen*, *strategy*, *interdict*, *pagoda*, *mendicant*; and what are:—*Nairs*, *God's-Acre*, *Geber*, *Forum*, *Mara*.

VI. What is iron? Where is it found? What different industries are connected with it? In what different states is it used? What is meant by pig-iron? What virtues has iron?

VII. Write down the meaning of the following:—

To fight at close quarters. A matter of life or death.

To weigh anchor. To lisp in numbers.

Itching fingers. A twice-born man.

A palpable lie. (Elephants) in a state of nature.

VIII. Give in your own words the substance of the poem entitled, 'the dream of Eugene Aram.'

(Your answer is not to extend over more than three pages of your answer-book.)

## ENGLISH.—SECOND PAPER.

B. EUTTI ESQUIRE, *Examiner*.

I. Correct, *if wrong*, any of the following:—

- (1) I have not got some cloth. (2) They have any cloth.  
 (3) Have you got some cloth? (4) Have they got any cloth?  
 (5) He had many breads. (6) I have much leaves of bread.  
 (7) He had some bread. (8) I have some leaves of bread.  
 (9) I have finished my letter last night. (10) Influenza  
 has raged in the city since Monday last. (11) He comes  
 that he may see me. (12) He comes that he might see me.  
 (13) He goes lest he shall see me. (14) He goes lest he  
 should see me. (15) He liked you better than he like me.

II. Parse the *Italicised* words in the following:—

The *then* King; water *to drink*; *much* has been done; fare  
*thee* well; to over-sleep *oneself*; honey *tastes* sweet; the  
 drums *are beating*; if he *is* not guilty, why do you punish  
 him? if he *be* guilty, he will be fined; I *am to tell* you the  
 truth, tried of this work. He must *needs* do this.

III. (a) When is an adjective said to be used attributively and when predicatively?

(b) Distinguish between Demonstrative adjectives and Demonstrative pronouns.

(c) What is the resemblance, and what the difference between a Demonstrative pronoun and a Relative pronoun?

(d) In what different senses is the verb *to be* used?

N.B.—Give examples to illustrate your answer in each case (*a, b, c, d.*)

IV. Insert appropriate proposition in the blanks given below :—

(a) A man of honour adheres—his convictions and acts—a sense—duty even if men rail him and think him weak—understanding and wanting—common sense.

(b) Change the direct form into the indirect. The teacher became angry and said to his pupil :—“Why have you disturbed the class again in this way? I have told you before that when I am speaking you should be silent. Leave the room and do not return to-day.”

V. Give the meaning of the following prefixes and suffixes in the under-mentioned words :—

*A* in *ashore*, *arise*, *ashamed*, *apathy*; *be* in *between*, *bedim*, *behead*, *befall*; *en* in *darken*, *vixen*, *golden*, *maiden*; *age*, in *bondage*, *hermitage*, *tillage*, *brokerage*.

VI. (a) Form two complete sentences to illustrate each of the following :—

Nominative absolute, cognate object, dative of interest, factitive object and object of manner.

(b) Exemplify the use of *but* as a relative, an adverb, and conjunction; of *that* as a Demonstrative adjective, Demonstrative pronoun, a Relative pronoun; of *since* as a preposition, an adverb, and a conjunction.

VII. Analyze the following sentences in the from given below :—

The clause.	Kind of clause.	Connectives.	Subject.	Adjuncts to Subject.
1	2	3	4	5
Finite verb.	Indirect object.	Direct object.	Complements with adjuncts to Predicate.	Adjuncts to Pred. or Extension of Pred.
6	7	8	9	10.

(a) Even as the driver checks a restive steed, so do thou, if thou art wise, restrain thy passion, which if it runs wild, will hurry thee away.

(b) What thou biddest, I obey.

(c) My wretched, wretched soul, I knew  
Was at the devil's price.  
A dozen times I groaned; the dead  
Had never groaned; but twice.

VIII. Reduce the following compound or complex sentences into simple:—(1) The letter was taken to the wrong house and so it never reached me. (2) Turn to the right and you will find the house. (3) It is a sad thing that he died so young. (4) Tell me when and where you were born. (5) He was not a man who would tell a lie.

Reduce the following simple sentences into a compound one:—A poor Arab came suddenly upon a spring of sweet water. He had never before tasted any but brackish water. He thought such sweet water fit only for a king. He filled his leather-bottle from the spring. He set off to present it to the king.

IX. Write down—

the plurals of—Norman, footman, man, servant, Lieutenant-Governor, Governor-General;

the feminines of—earl, bull, calf, sire, Mr., Executor;

the past tense and past participle of—lie (to lie down); lie (to speak false), die, dye, think, sink, buy;

the diminutives of—swan, lamb, sack, seed, man.

X. State in the form of a letter of not more than ten lines, the profession you would like to adopt, and the reasons of your choice. N. B.—Date, address, &c., must be inserted in the proper places.

ENGLISH.—THIRD PAPER.

TRANSLATION.—URDU.

BABU RAM MOHAN BANERJI, B.A., *Examiner*.

Translate into English:—

A.

ایک بارہ سنگا نے کسی صاف جھیل میں پانی پیتے وقت

اپنے سینگوں کا سایہ پانی میں دیکھا اور اپنے سینگوں کے خوبصورت ہونے سے متحیر ہوا۔ اُسی وقت یہ سمجھکر کہ میری تانگیں کیسی پتلی ہیں اُسنے اپنے دل میں کہا کہ بڑے افسوس کی بات ہے کہ مجھ ایسے خوبصورت جانور کی تانگیں ایسی پتلی ہوں۔ میں کیسا شاندار جانور ہوتا اگر صرف میری تانگیں ویسی ہی خوبصورت ہوتیں جیسے میرے سینک ہیں۔ اس خیال میں تھا کہ شکاری کتوں کے ایک غول کا بھونکنا اور شکاریوں کی آواز سنکر وہ بیکار چونک پڑا \*  
 ان آوازوں کو سنکر اسنے میدان میں نہایت تیزی سے چوکتی بھری اور کتے اور شکاری لوگ اسقدر پیچھے چھوٹ گئے کہ وہ اُن سے بچ سکتا تھا۔ لیکن ایک گھنٹے جنگل میں گھس جانے سے اُسکے سینک شاخوں کے درمیان پھنس گئے اور وہاں وہ جکڑا پڑا رہا یہاں تک کہ کتے اُسکے پاس پہنچ گئے اور اُسکو تکتے تکتے کرتے کرتے آخر وقت میں اُسنے اپنے جی میں کہا کہ جو کچھ ہیلوگوں کے لئے نہایت مفید ہوتا ہے اُسکو ہیلو کیسا بے قدر جانتے ہیں۔ جن تانگوں کو میں ناچیز سمجھتا تھا وہ مجھ کو امن سے بچالے جاتیں اگر یہ سینک جنہر میں ایسا نازان تھا مجھ کو ہلاکت میں نہالتے \*

B.

قریب قریب ہر شخص نے خاندان رائٹس چائیلڈ کا حال جو جہاں میں سب سے زیادہ دولت مند ہوا سنا ہے اُسکی دولت و بزرگی ایک مشہور و معروف ایہاندارانہ فعل کی وجہ سے قائم ہوئی جو اُسکے خاندان کے ایک شخص کی ذات سے قریب ایک صدی کے گذرا صادر ہوا تھا اُسوقت وہ لوگ کچھ بڑے دولت مند نہ تھے \*

انقلاب سلطنت فرانس کے زمانہ میں ملک جرمنی کے شہر فرانکفورت میں جو دریا میں پرواقع ہے ایک یہودی صراف

قلیل البضاعت لیکن نیک نام مسیحی موزراتیس چاڈیلہ رھتا  
تیا - جب فوج فرانس نے جرمنی پر خروج کیا تو شہزادہ  
ہیسی کیسل کو اپنی ریاست چھوڑ کر بیجاگذا پڑا - جب شہر  
فرنگفورت میں ہو کر گذرا تو اُسے موزراتیس چاڈیلہ سے  
استدعا کی کہ اپنی پاس اُسکا زر کثیر اور کچھ بیش بہا  
جواہرات امانت رکھ لے ورنہ غنیم کے ہاتھ پڑ جانے کا احتمال  
ہے۔ اس یہودی نے اسقدر مال اپنی تحویل میں لینے سے  
انکار کیا ہوتا مگر جب موزر نے دیکھا کہ شہزادہ کو کوئی  
دوسرا ذریعہ اپنی دولت کی حفاظت کا نہیں ملتا ہی تو  
آخر کار اُسکے رکھ لینے پر رضامند ہو گیا لیکن اوسکی رسید  
دینے سے انکار کی اسوجہ سے کہ ایسے خطرناک وقت میں وہ  
اوسکے واپس کرنے کی ذمہ داری نہیں کرسکتا تھا - یہ زر  
اور جواہرات جو کئی لاکھ پونڈ کے تھے شہر فرنگفورت کو  
روانہ کئے گئے اور جیسے ہی فرانسیسی لوگ وہاں پہونچے  
مستّر راتیس چاڈیلہ اوسکو اپنے باغچہ کے ایک گوشہ میں  
دفن کرچکا تھا مگر اُسنے اپنی دولت جو تعداد میں صرف  
چیدہ ہزار پونڈ تھی چھپانے کی کوشش نہیں کی - چنانچہ  
فرانسیسوں نے اوسکے قبضہ میں اور زیادہ دولت ہونے کا  
احتمال نہ کرکے اوسیکولے لیا۔ اگر وہ برخلاف اسکے بہانہ کرتا  
کہ اوسکے کچھ دولت نہیں ہی تو وہ ضرور تلاش کرتے جیسا  
کہ انہوں نے کئی موقعوں میں کیا تھا اور مہکن تھا کہ نکال  
کر کل دولت لیجائے۔ جب شہر کو وہ چھوڑ کر چلے گئے تو  
مستّر راتیس چاڈیلہ نے - شہزادہ کی دولت کیوں کر نکالی اور  
اوس میں سے تینوڑاسا روپیہ لیکر اپنے کام میں لایا - اوسکو  
کاروبار میں سرسبزی حاصل ہوئی اور جلد کھا کر اپنے ذات  
خاص کی بہت دولت جمع کی ۰

چند سال بعد جب امن و امان پھر قائم ہوا اور شہزادہ

دیسسی کیسل اپنی ریاست کو واپس آیا وہ فرنکفورت کے صراف کے پاس جانے سے کسی قدر خائف تھا کیونکہ وہ خیال کرتا تھا گو فرانسیسیوں کے ہاتھ اوسکا مال و متاع آیا بھی نہو مگر ممکن ہی کہ موزز بہانہ کر دے کہ وہ لے گئے اور اپنے پاس کل رکھ چھوڑے مستر راتھس چاٹیلٹ نے جب اوسے اطلاع دی کہ کل دولت اوسکی محفوظ و واپسی کے لئے موجود ہی اور زر نقد پر پانچ روپیہ فی صدی سود علاوہ۔ تو شہزادہ بہت ہی متعجب ہوا ساتھ ہی اس کے صراف نے یہ بھی بیان کر دیا کہ کس طرح اوسنے اوسکو بچایا تھا اور اوسکا تھوڑا سا روپیہ اپنے کام میں لانے کی نسبت یہ کہہ کو عذر و معذرت کی کہ اوسکی حفاظت میں مجھے اپنی سب ذاتی دولت تصدق کرنا پڑی مستر راتھس چاٹیلٹ کی وفاداری سے کہ جسکی اسانت میں اوسکا اسقدر زر خطیر تھا شہزادہ ایسا متاثر ہوا کہ قلیل شرح سود پر روپیہ اوسی کے قبض و تصرف میں رہنے دیا اور نیز اپنی مشکوری ثابت کرنے کے لئے اوسنے اس ایہاندار یہودی کی مہاجنی کی شاہان یورپ سے سفارش کر دی چنانچہ موزز سے بہت بڑے بڑے معاملات میں قرضہ وصول کرنے کے لئے کام لیا گیا کہ جس سے اوسکو منافع کثیر حاصل ہوئی \*

زمانہ ترقی کے ساتھ اوسکی دولت بیکہ ترقی کرتی گئی اور اپنے تین بیٹوں کو اسی قسم کے کاروبار میں یورپ کی تین بڑی دارالسلطنتوں یعنی لندن و پیرس و وینا میں لگا دیا۔ چنانچہ وہ سب کامیاب ہوئے وہ دنیا کے غیر عہدہ دار لوگوں میں اعلیٰ درجہ کے دولت مند ہوئے جو بیتا لندن میں مسکن گزین تھا ستر لاکھ پونڈ اسٹرلنگ چھوڑ کر مرا دیگر اوسکے دو بیٹے شاید کچھ کم دولت مند نہیں ہیں اور بیرون کا خطاب پائے ہوئے ہیں \*

## ARITHMETIC AND ALGEBRA.

J. CANNON ESQ., Examiner.

1. Two recurring decimals are added together: prove that the number of digits, in the period of the result, cannot exceed the product of the numbers of the digits in the original periods.

2. Find the value of  $\frac{5}{4}$  of  $36\frac{7}{2}$  of 1 mile, 5 fms., 30 poles.

3. Multiply Rs. 2, anna 1, by  $\frac{1}{2} + \frac{2}{3} + \frac{1}{4} + \frac{1}{5}$   
 $\frac{1}{2} + \frac{2}{3} + \frac{1}{4} + \frac{1}{5}$ .

4. Find by practice the cost of 10 cwt. 3 qrs. 23 lbs. 8 oz., at £ 1-5-8 per cwt.

5. A sum of money was divided amongst 5 people, 4 of them received respectively 15, 10, 12 of the whole, while the 5th received £ 105-3-6. What was the sum divided?

6. An oz., of standard gold, one-twelfth of which is alloy, is worth £ 3-17-10½, how many sovereigns could be coined from 36 lbs. 8 oz. of pure gold?

7. Find the square root of 6216.057921 and of 71.1111.

8. Simplify

$$(a) \left( \frac{x-y}{x+y} - \frac{x^2-y^2}{x^2+y^2} \right) \left( \frac{x+y}{x-y} + \frac{x^2+y^2}{x^2-y^2} \right)$$

$$(b) \frac{2}{b^2c^2} + \frac{b^2c^2}{(c-a)(a-b)} + \frac{2}{c^2a^2} + \frac{c^2a^2}{(a-b)(b-c)} + \frac{2}{a^2b^2} + \frac{a^2b^2}{(b-c)(c-a)}$$

9. Find the H.C.D. of

$$2x^3 - 2x^2 + x^2 + 3x - 6, \quad 4x^4 - 2x^3 + 3x - 9,$$

10. Solve

$$(a) 5 + \frac{2}{3 - \frac{1}{4-x}} = \frac{29}{5}$$

$$(b) \frac{x-a}{b-a} + \frac{x-c}{b-c} = 2,$$

$$(c) \left. \begin{aligned} \frac{x-a}{c-a} + \frac{y-b}{c-b} &= 1 \\ \frac{x+a}{c} + \frac{y+a}{a-b} &= \frac{a}{c} \end{aligned} \right\}$$

11. If I subtract from the double of my present age, the treble of my age six years ago, the result is my present age. What is my present age?

12. What is involution? Find the square root of  
 $1 - 4x + 10x^2 - 20x^3 + 25x^4 - 24x^5 + 16x^6$ .

13. If  $\frac{a}{b} = \frac{c}{d} = \frac{e}{f}$

each of these ratios =  $\left( \frac{pa^3 + qc^3 + re^3}{pb^3 + qd^3 + rf^3} \right)^{\frac{1}{3}}$

## EUCLID AND MENSURATION.

J. A. D'CRUZ, B. A., *Examiner.*

*N.B.—To obtain full marks, candidates must make neat figures, and quote the authority for each step in Euclid.*

I. Define a parallelogram, a secant, a sector, a segment of a circle, converse propositions, and reciprocal proportions.

What is the difference between "five feet square" and "five square feet"?

II. If two triangles be upon the same base, and on the same side of it, and have their sides which are terminated in one extremity of the base equal to one another; the sides terminated in the other extremity of the base are unequal.

III. If two triangles have two sides of the one respectively, equal to two sides of the other; but if the angle contained by the two sides of one be greater than the angle contained by the two sides equal to them of the other: the base of the one which has the greater angle is greater than the base of the other.

IV. A straight line bisecting the two sides of a triangle is parallel to the base.

V. The rectangle under the sum and difference of two straight lines is equal in area to the difference of the squares on those lines.

VI. If three points are not in the same straight line, a circle may be described whose circumference shall pass through them.



VII. To construct an isosceles triangle, in which each of the angles at the base shall be double of the angles opposite to the base.

VIII. A ladder placed in a street reaches a window 32 feet high making an angle  $A$  with the wall. On being turned round without removing the foot, it reaches a window 24 feet high on the other side of the street, making an angle  $(90^\circ - A)$  with the wall. Find the breadth of the street.

IX. Having given the three sides of a triangle, to find the radius of the circle described about it.

X. The three sides  $AB$ ,  $AC$ ,  $BC$ , of a triangle are 68, 75, and 77 feet respectively. Find the length of the perpendicular from  $A$  on  $BC$ .

IX. What is a cross? Describe how the situation of the perpendicular to a straight line, from a given point without it, may be determined with the aid of the cross.

XII. In a quadrilateral figure  $ABCD$ ,  $AB=BC=CD=60$  yards,  $AD=80$  yards, and the angle  $DAB$  is a right angle. Find the area of the figure.

XIII. Make a rough sketch of the field, and find its area from the following measurements in links. The boundary line  $BFC$  is an arc of a circle.

H.	0	G	120	0	□ A	
					3200	0
					1900	150K
					1500	
					1000	
				0	□ C	
					□ C	
					2500	0
					1280	1280 F
					0	0
					□ B	Go N. W.
					□ B	
					1020	0
					1280	100 E
					500	80 D
					0	0
					□ A	Go N. E.

MAULVI SYED AMJAD ALI, M.A., *Examiner.*

1. Translate into English :—

هَذَا مَا كَانَ مِنْ أَمْرٍ وَأَمَّا مَا كَانَ مِنْ أَمْرِ سَيِّدِهَا فَحَبَّةُ فَاذِهِ  
اَتَيْتُ إِلَى دَارِهِ وَجَلَسْتُ عَلَى فِرَاشِهِ وَنَادَانِي يَا نَعَمُ فَلَمْ تَجِبْهُ فَقَامَ  
مُسْرِعًا وَنَادَانِي فَلَمْ يَدْخُلْ عَلَيْهِ أَحَدٌ وَكُلُّ جَارِيَةٍ فِي الْبَيْتِ  
اِخْتَفَتْ خَوْفًا مِنْ سَيِّدِهَا فَخَرَجَ نَحْمَةُ إِلَيَّ وَالِدَتُهُ فَوَجَدَهَا جَالِسَةً  
وَيَدُهَا عَلَى خَدِّهَا فَقَالَ لَهَا يَا أُمِّي أَيْنَ نَعَمُ فَقَالَتْ لَهُ يَا وَلَدِي  
مَعَ مَنْ هِيَ أَوْثَقُ مِنِّْي عَلَيْهِمَا وَهِيَ الْخَبْرُ الصَّالِحَةُ فَانْهَارَتْ خَرَجَتْ  
مَعَهَا لِتَنْزِيلِ الْفُقَرَاءِ وَتَعْوَدِ فَقَالَ وَتَبَيَّ كَانَ لَهَا عَادَةٌ بِذَلِكَ  
وَفِي أَيِّ وَقْتٍ خَرَجْتَ قَالَ بِكَرَّةِ النَّهَارِ قَالَ وَكَيْفَ أَذْنُتُ  
لَهَا بِذَلِكَ فَقَالَتْ لَهُ يَا وَلَدِي هِيَ الَّتِي أَشَارَتْ عَلَيَّ بِذَلِكَ \*

(2) Re-write the above with vowel-points carefully set over each letter.

(3) Write down the roots of the following :—

فِرَاشٌ وَ سَيِّدٌ وَ جَارِيَةٌ وَ عَادَةٌ وَ أَشَارَتْ وَ اخْتَفَتْ

(4) Translate into English :—

رَجُلٌ ظَرِيفٌ كَانَ اعْتَادَ السَّفَرَ فِي الْبِلَادِ لِيَجْرِبَ الْأُمُورَ مِنْ  
أَحْوَالِ الْعِبَادِ فَاتَّفَقَ أَنْ يَصِلَ إِلَى بَلَدٍ وَ تَفْحَصَ عَنْهُ يَتَفَرَّجُ  
مِنْ رُؤْيَيْهِ وَ رَوَايَتِهِ وَ يَقْتَبِسَ مِنْ أَنْوَارِ فِرَاسَتِهِ وَ دِرَايَتِهِ  
فَأَشَارُوا إِلَى رَجُلٍ مِنَ الْكِبَرَاءِ يُقَالُ لَهُ أَبُو الْهَكَارِمِ فَخَالَه كَاسِمُهُ  
وَ اشْتَنَقَ لِيَسْتَرْيَحَ زَمَانًا مِنْ مَحْنِ السَّفَرِ وَ الْهَظَالِمِ فَلَمَّا زَارَهُ  
وَجَدَهُ مُخَالَفًا لِلْمَكْنِيَّةِ فَتَنَخَّصَ وَ رَجَّحَ عَدِيمَ الْهَيْئَةِ فَإِذَا اسْتَحْسُوا  
مِنْ بَشَرَتِهِ آثَارَ الْهَلَالِ قَالَ وَاحِدٌ مِنْهُمْ كَيْفَ الْحَالُ فَأَجَابَ لَهَا  
دَخَلْتُ عَلَيْهِ لَمْ أَرِ ابْنًا مِنْ أَبْنَائِهِ كَدِيهِ \*

(5) Explain the last sentence in question No. 4 as clearly as you can. Why ابْنًا and not بَنَاتًا instead ?

(6) Translate into English:—

الفضل في الايثار \* والجرود في الاعسار  
بذل فضول المال \* ليس من الافعال  
الكلم بعد الاكل \* يترك كل فضل  
الدهر كالهيزان \* في شاهد العيان  
لكنني ذى ربه \* ملان كفتي — هـ

(7) Name the author of the above verses and explain the simile therein.

(8) Translate into English:—  
عليك ببر الوالدين كليهما \*  
ولا تعصب من الاتقياء مهذباً \*  
وبر ذري القربي وبر الابعاد  
و قارن اذا قارنت حراماً ديباً \*  
عفيفاً زكياً منجزاً الموعود

وكف الاذي واحفظ اسانك رارتيب \*  
فدينيك في ود الخليل الهساعد  
و غص عن الهكورة طرفك واجتنب \*  
اذني الجار استهسك بحبل الهحامد

(9) Make a list of the several parts of speech contained in the above couplets. Mention the kind of simile in مصرع and analyze the first hemistich or مصرع.

### ARABIC.— SECOND PAPER.

MAULVI SYED AMAD ALI, M. A., Examiner.

1. Translate the following into Arabic, and put very carefully all the vowel marks:—

She called him. She will go home. He came to him. She came to her. He came to him. Two men came. One woman went out. How do you do. Very well. All praises are due to God. Do you know Arabic? Yes, a little. I have been studying it for the last four years. It is a difficult

language. It requires very careful study. Contentment is the first quality. Half a loaf is better than no bread. Every thing has an end. All men are like one another. Their father is Adam and their mother Eve. Keep silence often. Be contented with your daily bread. Disobey your vicious inclinations. I long to know something about our country. I shall be happy to gratify your wish. Under the British Government our lives and properties are safe. Owls are birds that fly by night. They have large heads, great eyes that jut forward, strong hooked bills and crooked claws.

2. Translate the following into English :—

تبارک الله احسن الخالقين والحمد لله رب العالمين  
 ذهبت امس الي السوق واشتريت هناك خبزا من الخبز ثم جئت  
 الي مكاني- ثم جاء الوقت فنهضت وقمت متوجها الي دارى فلم  
 اصل الي دارى الا ورسل اليك قد هجموا علي وحمّلوني حملا  
 غريبا وذهبوا بي اليه فوجدته قاعدا علي كرسي وهو غضبان  
 فقال يا اسحاق اخرجت عن الطاعة فقلت لا والله يا منك  
 قال فيها قصتك اصدقني الخبر فقلت نعم ولكن في حلوة  
 فاشار الي من بين يديه فذهبوا فحدثته الحديث وقلت له  
 اني وهدتها بحضورك قال احسنت ثم اخذنا في لذتنا ذلك  
 اليوم والى ملك متعلق القلب بها \*

PERSIAN.—FIRST PAPER.

MUNSHI RAM KISHEN, *Examiner.*

1. Translate literally into English :—

جالبينوس حكيم ابلهي را ديد دست در گريبان دان نشيندے (a)  
 زده بود و بي حرمتي ميگردد- گفت اگر اين دانا بودے کار  
 او با نادان بدينجا نرسيدے که گفته اند \*  
 مثنوي \*  
 دو عاقل را نباشد کين و پيکار \* نه داناے ستيزد با سبکسار  
 اگر نادان بوحشت سخت گويد \* خود مندش بنرمي دل بخويد  
 دو صاحب دل نگه دارند موي \* هميدون سرکش و ازرم جوي  
 و گراز هر دو جانب جاها \* اگر زنجير باشد بگسلا نند

نابینای در شب تاریک چراغ بدست و سبوی بر دوش (b)  
 در راهی میرفت - فضولی در راه بار در چار شد و گفت ای  
 قاتل روز و شب پیش تو یکسان است و روشنی و تاریکی در  
 چشم تو برابر این چراغ را فائدۀ چیست - نا بینا بخندید که  
 این چراغ از بهر خود نیست از برای چو تو کور دل بیخبر  
 است قاتل من پهلوی نونی و سبویم نشکني \*

فرزند زاده عزیز من از دین و دنیا مستغید و فیروز زمند (c)  
 باشند - قلعه تر کند و ذول کند را از اشقیای ضلالت پیوند  
 گرفتند - الحمد لله کارهای آن نورالابصار روز به سزاوار  
 تحسین و تفرین بسیار است - شمشیر خان شهاب هم مدبر  
 درستی است - کار خرب از آدم خوب می آید - ترکند را به  
 شمشیر گداز موسوم کردم - یکے را گرفتن و دیگرے را دعوی  
 کردن خاصه حرم بیت الهال عالمگیر است \*

II. (a) Explain the construction of and give their English meanings:—

نورالابصار - نورانی

آدم - نر - نریان - فرزند زاده شمشیر

(b) Show by examples how compound adjectives are formed in Persian.

III. Translate into English:—

(a) آگره از شهرهای قدیم بزرگ هندوستان است برکنار  
 دریای جهنما قلعه کهنه داشت - پدرم پیش از تولد من آنرا  
 انداخته قلعه از سنگ سرخ تراشیده بنا نهادند که روند های  
 عالم میل آن قلعه نشان نمی دهند - در عرض پانزده شانزده  
 سال با تمام رسید مشتمل بر چهار دروازه و دودریچه - سی  
 و پنج اک روپیه که یک صد و پانزده هزار تومان را ادبجا  
 ایران و یک کور پنج اک خانی بحساب توران باشد خرج  
 این قلعه شده \*

میفرمودند خواب و خور برای آنست که نیروی (b)  
جستجوی ایندی رضا فراهم آید - بیچاره آدمی از بیدارشد  
مقصود ندارد \*

میفرمودند - درپند پذیری نظر بر سال و ثروت نیفتد  
خورد و تهیدست را از دیگران در حق نبوشی باز نداند \*

IV. Distinguish between *نهی* and *نهی*, and *ضمیر متصل* and *ضمیر منفصل*. Give an example of each.

V. Explain in Persian:—

یعقوب را دو دیده حیرت سفید شد

آوازه زمصر بکنعان نهی رسد  
از حشمت اهل جهل بکیوان رسیده اند

جز آه اهل فضل بکیوان نهی رسد  
زمسد آه دایم دود آهش

بفرق سر شلی چتر سپاهش  
ز خور شید حوادث هیچ گاهی

نبود غیر آن چترش پناهی

VI. Translate into English and analyze the last couplet of (b) according to Persian Grammar:—

(a) اے پسر همنشین اگر خواهی

همنشینی طلب ز خود بهتر

مثل اخگر که با همه گرمی

سود گردن بوصل خاکستر

ورچه باشد فسرده طبع انگشت

چون باتش رسد شود اخگر

گر تو خواهی که نیک نام شوی

دور باش از بد اے عزیز پدر

(b) خداوند گارا نظر کن بچود

که جز آمد از بندگان در جود

گنه آید از بنده خاکسار  
 با امید عفو خداوندگار  
 این قاجوران که قاجدار اند (c)  
 بر درگاه او جبین گزار اند  
 این گنبد آسمان که بالاست  
 خشتیست ز آستان والاست

VII. Write out from memory any of them and bring out its sense in your own Persian.

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 PERSIAN.—SECOND PAPER.

W. WILLIAMS Esq., Exam. in P.

I. Give a free, and not a word-for-word translation into English:—

آورده اند که سلطان روم را با عزیز مصر مخالفت افتاد (a)  
 که در صورت که حادث شده عزیز مصر را از آن آگاه کردی و  
 چون اخبار آن رسید راست بود عزیز بر او اعتماد کرد - این  
 سخن را بد قیصر رسانیدند مطابقاً بدان التفات نکرد و بروی  
 آنکس نیاورد تا مصاف نزدیک رسید قیصر او را بخواند و  
 بهیچ درپیش خود مشغول ساخت و در اثنای آنحال سران  
 لشکر و امراء سپاه خود را طلبید و گفت امراء عزیز خواص  
 بارگاه او بد من نوشته اند و سوگند خورده که چون صف مصاف  
 راست شود عزیز را دست و گردن بستم پیش من آورند شهادت  
 فارغ دارید و بهتوت تمام روی بکار آید - آن مرد چون این  
 سخن بشنید متعجب شد چون از مجلس بیرون آمد در حال  
 این معنی را نوشته پیش عزیز فرستاد عزیز چون این حال  
 معلوم کرد متعجب و توقف کردن مصالحت ندید و مصاف نکرد  
 دوسه بگریز نهاد و قیصر در عقب او لشکر فرستاد و اسباب و  
 اموال عزیز بدست آورد و بدین یک تدبیر سپاهی را منهنز

هر که بے تدبیر کارے کرد ملک از دست داد  
ملک میخواستی بنگای کار بر تدبیر نه  
بهر تسخیر میالک لشکر و خیل و چشم  
جمله در کار اند لیکن زین همه تدبیر به

یوسف خان والی ولایت کشمیر همواره اظهار اطاعت (b)  
و انقیاد نموده پیشکشهای لائقه ارسال میداشت در سال سوم  
جلوس والا یعقوب نامی پسر خود را با پیشکش فراوان بدرگاه  
والا فرستاد او چند گاه در حضور قیام داشت بنابر وحشتیکه  
بخاطر داشت بے رخصت از حضور گریخته بکشمیر رفت چون  
این معنی بحضر رسید فرمانی بنام یوسف خان صادر شد که  
خیبریت ذات و امنیت ولایت تو در این است که خون آمده  
بملازمت مشرف شود یا پسر خود را باستان والا بفرستد او  
عذرهای زبیدارانه پیش آورده عرضداشت نمود لهذا قصد  
کشمیر بخاطر اکبر مصمم گشت شاهرخ مرزا و راجه بهگونت  
داس و شاه قلی خان محرم و دیگر امرا برین خدمت متعین  
شد بمصالح راه بران دولت خواه روانه شدند و بسخطی و  
عسرت تمام قطع مراحل نموده نزدیک کشمیر رسیدند  
یوسف خان در خون ثواب مقاومت ندیده اراده داشت که  
بامراے بادشاهی ملاقات نماید اما از بیم کشمیریان نمی  
توانست اخرا الامر به بهانه دین مکان مجادلہ برآمده بامراے  
بادشاهی ملاقی شد کشمیریان باطالع این معنی حسین چک  
را بحکومت برداشته آمادہ جنگ شدند درین اثنا یعقوب  
پسر یوسف خان از پدر جدا شده بکشمیر رفت کشمیریان  
همراہی حسین چک گذاشته بر یعقوب جمع آمدند و او را  
شاه اسمعیل خطاب داده و سی کوهها مستحکم ساخته بقصد  
محاربه با لشکر بادشاهی صفوف آراستند \*



II. Translate into idiomatic Persian, and endeavour to express the full meaning of the English text :—

Cyrus, when he saw the Lydians draw up in order of battle, alarmed at the cavalry, had recourse to the following stratagem, on the suggestion of a Mede. Having collected together all the camels that followed his army with provisions and baggage, and having caused their burdens to be taken off, he mounted men upon them equipped in cavalry accoutrements, and having furnished them, he ordered them to go in advance of the rest of the army against the Lydian horse; and he commanded his infantry to follow the camels, and he placed the whole of his cavalry behind the infantry. When all were drawn up in order, he charged them not to spare any of the Lydians, but to kill every one they met; but on no account to kill Croesus, even if he should offer resistance when taken. Such were the orders he gave. He drew up the camels in the front of the cavalry for this reason: a horse is afraid of a camel, and cannot endure to see its form or to scent its smell: for this reason, then he had recourse to this stratagem, that the cavalry might be useless to Croesus, by which the Lydian expected to signalise himself. Accordingly, when they joined battle, the horses no sooner smelt the camels and saw them, than they wheeled round, and the hopes of Croesus were destroyed.

### SANSKRIT.—FIRST PAPER.

BABU MATI LAL BHATTACHARYA, M.A., *Kraminer*.

I. अथ सौ कोटरान्तरगतं गगकं दृष्ट्वा माघेपनाह, भोः गगक  
न त्वया सुन्दरं कृतं यन्ममावगम्यस्थाने प्रविष्टोऽमि तच्छीघ्रं  
निष्क्रम्यताम् । गगक आह, न तवेदं गतं किन्तु ममैव । तत्  
किं मिथ्या पश्यामि जल्पसि । उक्तञ्चः—

वापी कूपतडागानां देवालयकुगन्तनाम् ।

उत्सर्गात्परतः स्वाभ्यनपि कर्तुं न शक्नोते ॥

तन्ममैतद् गृहं न तवेति । कपिज्जल आह भो यदि स्मृतिं  
प्रमाणीकरोषि तदागच्छ मया सह । येन स्मृतिपाठकं पृष्ट्वा स  
यस्य ददाति स गृह्णातु ।

(a) Analyze the Sandhi in तच्छीघ्रं, भो यदि and शशक आह; and state rules.

(b) Decline the base of असौ in all singular case-endings.

(c) Expound the Samasas in the underlined words in the above extract.

(d) What is the root of आह and in what tense is it used?

(e) Explain सश्रुतिं प्रमाणीकरोषि.

II. (a) गुरुलाघवमर्थानामारम्भे कर्मणां फलम् ।

दोषं वा यो न जानाति स बाल इति होच्यते ॥

(b) एकेन खलु वाणेन समर्थयभिहते मयि ।

द्वावन्धौ निहतौ वृद्धौ साता जनयिता च मे ॥

(c) सर्वे तस्यादृता लोका यस्यैते त्रय आदृताः ।

अनादृतास्तु यस्यैते सर्वास्तस्याफलाः क्रियाः

(1) Reproduce the above extracts in simple prose.

(2) Parse the underlined.

(3) Who are meant by एते त्रयः in (c) ?

(4) Change the extract (b) into the active form.

III. (a) अर्थौ द्वावपि निष्पत्तौ युधिष्ठिर भविष्यतः ।

(b) सव्येन च कटीदेशे गृह्य वाससि पाण्डवः ।

तद्रत्नो द्विगुणं चक्रे रवन्तं भैरवं रवम् ॥

(1) Translate the above into English.

(2) Who is the speaker in the extract (a) ? What are referred to by अर्थौ द्वौ ?

(3) Is गृह्य grammatically correct ? Give reasons for your answer.

IV. Explain :—

(a) कोऽतिभारः समर्थानां किं दूरं व्यवसायिनाम् ।

को विदेशः सविद्यानां कः परः प्रियवादिनाम् ॥

(b) दरिद्रान् भर कौन्तेय सा ग्रयच्छेषवरे धनम् ।

आधितस्यौषधं पथ्यं नीरुजस्य किमौषधैः ॥

- (1) Parse ईदृशरे and औषधैः in (b).
- (2) Account for the long ? (ई) in नीमजस्य
- (3) Give the प्रकृति and प्रत्यय in कौन्तेय
- (4) Conjugate the root in प्रयच्छ् in जिद् (and Preterite).

V. (a) तां तु राजा दशरथो नहाराष्ट्रविवर्धनः ।  
 पुरीनावासयामास दिवि देवप्रतिर्यया ।  
 कपाटतोरणवतीं सुविभक्तान्तरापगासु ।

॥ सर्ववन्त्राद्युधवतीश्रुपितं सर्वशिल्पिभिः ॥

- (1) Render the above into prose.
- (2) Expound the Samasas in the underlined words.
- (3) Give the meaning of आवासयामास.

V. बुभुक्षितः किं न करोति पापं, क्षीणा नरा निष्करुणा भवन्ति । आख्याहि भाद्रे प्रियदंनस्य, न गङ्गादत्तः पुनरेति कूपसु ॥

- (1) Translate the above into English or Hindi.
- (2) Who or what are referred to by the underlined word ?
- (3) In what case is भद्रे ? Are there any cases of Sandhi in :—

“क्षीणा नरा निष्करुणा भवन्ति” ?

### SANSKRIT.—SECOND PAPER.

BABU MATI LAL BHATTACHARYA, M.A., *President.*

1. Translate into Sanskrit :—

- (a) “In the beginning God cre-ated the he-aven and the earth.”
- (b) “Early to bed and early to rise, makes a man healthy, and wealthy, and wise.”
- (c) “At dawn of day, we went out of the town to take a walk on a piece of high ground and saw the sun rise. The rays grew bright, so that we could not look at it. Then we saw the face of the land.”
- (d) “Flowers are sweet and beautiful, but they lose their sweetness and beauty. Animals are strong and active when full grown, but in old age they become feeble and slow. Men are first

infants, they grow up and they die. Some are rejoicing to-day and weeping to-morrow. Everything in the world is changeable."

II. Translate into English :—

चला लक्ष्मीश्चलाः प्राणश्चलो देहोऽपि यौवनम् ।

चलाचलश्च संसारः कीर्त्तिधर्मश्च निश्चलः ॥

विद्या विवादाय धनं सदाय

शक्तिः परेषां परिपौडनाय ।

खलस्य साधोर्विपरीतमेतत्

ज्ञानाय दानाय च रक्षणाय ॥

शूकर उवाच

दशव्याघ्रा जिताः पूर्वं सप्तसिंहाश्च यो गजाः ।

पश्यन्तु देवताः सर्वा अद्य बुद्धं त्वया मया ॥

सिंह उवाच

गच्छ शूकर ! भद्रं ते ब्रूहि सिंहो मया जितः ।

पण्डिता एव जानन्ति सिंहशूकरयोर्बलम् ॥

अस्ति जम्बूद्वीपे विन्ध्यो नाम गिरिः । तत्र चित्रवर्णा  
नाम सयूरः पत्निराजो निवसति । तस्यानुचरैरहं अरण्यमध्ये  
वरनवलोकितः प्रष्टुं करतुं कुतः समागतोऽसि । ततो नयो-  
क्तम् अहं कर्पूरद्वीपस्य राज्ञो हिरण्यगर्भस्यानुचरः । कौतुकाद्दे-  
शान्तरं द्रष्टुमागतोऽस्मि । तच्छ्रुत्वा पत्निमिरुक्तम् अनयोः  
कौतुको देशः भद्रतरो राजा वा । ततो नयोक्तम् आः किमेव-  
मुच्यते सहदन्तरम् । यतः कर्पूरद्वीपः खगैकदेशः, राजा च  
द्वितीयः स्वर्गपतिः कथं वर्णयितुं शक्यते । अत्र सरस्थले पतिता  
पूयं किं कुरुष्व आगच्छतास्त्रदेशे गम्यताम् । ततस्तद्वचन-  
माकर्ण्य पत्निः सक्रोधा बभूवुः । तथाचोक्तम्

"उपदेशो हि सूखाणां मकोपाय न शान्तये" ।

## HISTORY.

R. H. GUNSON Esq., *Examiner.*

(1) Who was Simon de Montfort? What was the composition of the famous parliament which he summoned?

(2) Who were the Lollards, and why were they so called? How are their doctrines connected with those of the Reformers of Henry VIII's times?

(3) Explain exactly the object of the Exclusion Bill. What were Lord Halifax's objections to it. How did the efforts to pass the bill affect the position of English parties at the time?

(4) Trace the descent of George I. from Henry VII.

(5) What was the cause of the Seven Year's war? What did England gain by the treaty by which the war was brought to an end?

(6) What was the state of things that threw the Hindustan open to an Afghan invasion in the end of the 12th century?

(7) Sketch the history of Goa up to the time of Akbar.

(8) What was the "political system" devised by Lord Clive to settle the affair of Bengal? How was it "broken up by events" a few years later?

(9) Explain the manner in which Lord Cornwallis settled the land revenue of Bengal.

(10) What were the circumstances that led the Peshwa to accept British suzerainty in 1802? What were the terms of the treaty which he then made with the company? What led him to break that treaty?

## GEOGRAPHY.

B. D. GORDON, *Examiner.*

N. B.—No more than nine questions are to be attempted by the Candidate.

I.—What do you understand by the *Physical Geography* of a country. Give an example of the way in which it affects the *condition* and *pursuits* of the people.

II.—What evidence have we of the *internal heat of the earth*? Of what use are *volcanoes*? Describe a volcanic eruption.

III.—Distinguish between *dew*, *hoarfrost*, *fog*, *cloud*, and *rain*. How are heavy and long continued downpours of rain *caused*? What is a *rain-gauge*? Mention some parts of the world which have an *annual rainfall* exceeding one hundred inches.

IV.—*Who or what are the following and where are they found:—*Afridis, Bantus, bison, cinnamon, cinchona, emu, madder, opossum, taro, turquoise, vanilla, and zebra.

V.—*Account for the following :—*

- (a) The dryness of the south-west of Asia.
- (b) The sluggishness of the rivers of Russia.
- (c) The periodical inundations of the Nile.
- (d) The greater rainfall on the west than the east coast of India.
- (e) The greater coldness of North America when compared with countries in the same latitude in Europe.
- (f) The possibility of a telegram sent from Allahabad to London at 2 P. M. and occupying 2 hours in transit, reaching its destination at 10 A. M. of the same day.

VI.—*Define the terms :—*Bight, defile, dewpoint, dune, estuary, promontory and seaboard.

VII.—*What and where are the following :—*Amber, Bencoolen, Bangweolo, Chesapeake, Cook, Fiji, Guadiana, Kenia, Magellan, Massachusetts, Mercara, Monrovia, Nova Scotia, Orinoco, Pechele, Perokop, and Petropolovski.

VIII.—*Name the following :—*The tributaries of the Mississippi, the possessions of the French in America, the chief towns of Mexico, the exports and imports of Brazil, and the battle-fields of Spain.

IX.—*What are the boundaries of Persia ? Describe its climate, people and form of government. For what are Teheran, Ispahan, Shiraz, and Bushire respectively noteworthy ?*

X.—*Draw a Map of Australia and mark on it its divisions and chief towns, as well as its gulfs, bays, and capes, and the course of its only large river.*

XI.—*Give a full description of any one of the following :—*

- (a) The Congo Free State;
- (b) Burma, its people and productions;
- (c) A journey from Halifax to Coal Harbour, by the Canadian Pacific Railway.

## ENTRANCE AND SCHOOL FINAL EXAMINATIONS, 1891.

## ENGLISH.—FIRST PAPER.

F. L. THOMSON ESQ. M.A.	}	<i>Examiners.</i>
W. C. HORST ESQ. B.A.		
J. W. BACON ESQ. M.A.		

1. Fully explain the meaning of the following words and show by short sentences how you would use them:—chrysalis, periphrasis, libertine, tutelar, parasite, genuflexion, postilion, friars, strenuous, aphorism.

2. Bring out the meaning of each of the following phrases using the simplest language you can:—

(1) To fight by proxy; (2) every now and then; (3) to imbibe another's spirit; (4) to be made for each other; (5) to proceed to extremities.

3. The student is expected to bring out clearly and concisely the meaning of each of the following proverbs and sayings. He should use simple language and explain any metaphors.

- i. It is better to wear out than to rust out.
- ii. None of us liveth to him self or dieth to himself.
- iii. Self-preservation is the first law of nature.
- iv. Pride goeth before destruction and a haughty spirit before a fall.
- v. Keep me innocent, make others great.
- vi. Be not quick of tongue and slow of soul.

4. (a) Write in the *indirect* form the part of the following that are in the *direct* form of narration.
- (b) Explain the phrases in bold type.
- (c) Answer briefly the questions in italics.

A greek quotation, and in a coach he routed the clumbering professor from a kind of dog-shop in a snug corner of the vehicle. Shaking his head and rubbing his eyes, 'I think, young gentleman,' said he, 'you favoured us just now with a quotation from Sophocles; I do not happen to recollect it there.' 'Oh, sir!', replied out tyro, 'the quotation is word for word as I have repeated it, and in Sophocles too; but I suspect, sir, that it is, some time since you were at college.'

*Why did the professor shake his head? What is meant by a 'dog sleep'? What is the force of the words, 'there' and 'our'? Give one-word equivalent in meaning to 'word for word.' What did the young man mean when he said, "I suspect, sir, that it is some time since you were at College"?*

5. In the three following passages, bring out the meaning in simple and concise sentences; answer the questions in italics very briefly; explain, in foot-notes, the meaning of words or phrases in bold type.

(a) Dr. Duncan knew that, even in the poorest family, odds and ends of income were apt to be frittered away in unnecessary expenditure. He saw some thrifty cottagers using the expedient of a cow, or a bit of garden-ground as a savings bank finding their return of interest in the shape of butter and milk, or garden produce, and it occurred to him that there were other villagers—single men and young women—for whom some analogous mode of storing away their summer's savings might be provided, and a fair rate of interest returned upon their little investments.

*What is the difference in meaning between "income" and "salary"? If a man spends his money unnecessarily, what is he said to be? What are men who take more than a fair rate of interest on money, called? Why is there reference made to summer's savings, and not to the savings of winter?*

(b) I look back on that part of my life with little satisfaction: it was a period of gloom and savage unsociability; by degrees I sunk into a kind of corporeal torpor: or if aroused into activity by the spirit of youth, wasted the exertion in splenetic and vexatious tricks, which alienated the few acquaintances whom compassion had yet left me. So I crept on in silent discontent, unfriended, and unpitied, indignant at the present, careless of the future; an object at once of apprehension and dislike.

*Parse the word 'object.' What is the difference in meaning between 'apprehension' and 'dislike'? Who wrote this passage and to whom does it refer?*

(c) Dark and voluminous the vapours rise,  
And hung their horrors in the neighbouring skies,  
While through the Stygian veil that blots the day  
In dazzling streaks the vivid lightnings play.





mon noun. Name the class to which the nouns noted below belong—

Fox has been called the English *Demosthenes*. This stone is a *brilliant*. The *armies* of Europe. The *jury* were kept without food.

Give the plural of father-in-law, lieutenant-governor, echo, grotto.

Which of the two: London's streets, or the streets of London, would be the proper expression to use, and why? Parse *yours*, in 'this horse of *yours*.'

2. What meaning has the word *few*, in the following expressions:—

He read few books, he read a few books, and, he read the few books he had; and the word *some*, in, *some* enemy hath done this, there were some twenty people present.

Give the comparative and superlative forms of evil, late, much, few.

How would you explain the degrees of comparison in adjectives that seemingly do not admit of comparison, as, for example, their occurrence in such expressions as—I am *more or less certain*; he has the *most perfect* manners.

3. What is a reflexive pronoun, and what purposes does it serve? Illustrate your answer by means of sentences. Give the force of *they* in—They say there is a thing called light; of *it* in—What a pretty little girl it is; of *what* in—What a sad tale! and of *who* in—Who acts rightly, acts wisely. Parse *that* in—The strength of the lion is greater than that of the horse.

4. What is a factitive verb, and what a cognate object? What difference is there between the gerund and the participle? Give examples to explain your answer. What is the chief use of the present indefinite tense? Am I right in saying, 'I start to-night for Cawnpore'?

Give the meaning of the past perfect tense; and state into what tense the verb expressing the previous action is put, and into what tense the verb expressing the subsequent action. Illustrate your answer by means of an example.



- (2) "Say, rather, child!" replied the advancing form, "say rather that nothing of beautiful or of glorious lives its own true life until my wing hath passed over it."

ENGLISH.—THIRD PAPER.

*Translation.*

DR. G. THIBAUT, PH. D., *Examiner.*

Translate into English :—

A.

جس طرح دریا ابر سے سمندر کا پانی لیتا ہے اور پھر سمندر کو واپس دیتا ہے اسی طرح سے شکر گزار کا دل اُن قائدوں کو جو اُس نے حاصل کیئے ہیں اپنے محسن کو پہنچانے سے خوش ہوتا ہے۔ وہ نہایت خندہ روئی سے احسانات کو قبول کرتا ہے اور اپنے مہربان محسن کو نہایت محبت اور قدر کی نگاہ سے دیکھتا ہے۔ اگر مجاوضۂ احسان اُس کے امکان سے باہر ہو تو وہ اپنے دل میں نہایت شکر گزاری کے جوش سے اُس کو یاد رکھتا ہے۔ وہ تادم العہر اپنے محسن کے احسانات فراموش نہیں کرتا۔

سخی کے ہاتھ مثل آسمانی ابر کے ہیں جسکی بارش سے زمین پر پھل اور پھول اور جڑی اور بوٹی پیدا ہوتی ہے۔ مگر احسان فراموش کا دل مثل ریگستان کے بالو کے ہے جو کل بارش کا پانی جذب کر لیتا ہے اور کچھ بھی پیدا نہیں کرتا۔\*

B.

زمانہ قدیم میں خبر لیجانے کے لئے کبوتر اکثر استعمال کئے جاتے تھے۔ جب رومیوں نے میدیڈنا کا محاصرہ کیا تھا تب بروٹس اور ہارشیس کے درمیان میں کبوتر کے ذریعہ سے خط و کتابت جاری تھی۔ یونان میں جب اولمپیا کے ورزش کے نامی کھیل ہوا کرتے تھے تب بازی جیتنے والے اپنے دوستوں کو اکثر

کبوتر کے ذریعہ سے فوراً خبر پہنچتے تھے۔ اس سفورتہ اور کیہ بروج کے اخیر کشتی رانی کے نتیجے کی پہلی خبر مع اسکی تصویر کے گریفک اخبار کے پاس کبوتر کے ذریعہ سے پہونچتی تھی۔ روزانہ اخبار دریافت خبر کے لئے کبوتر کو اکثر استعمال میں لاتے ہیں۔ کبوتر کی تیز پروازی اور انکی طاقت بازو کا حال سنانے سے تعجب ہوتا ہے اور جلد یقین نہیں ہوتا۔ مثلاً یہ بات صحیح ہے کہ امریکا سے آنے والا کبوتر بحر اقلان تک کو پار کر سکتا ہے اور سولہ سو میل چوبیس گھنٹوں میں طی کرتا ہے ۰

C.

ہاتھی کا حافظہ بہت قوی ہوتا ہے اور اس جانور کی عمر بڑی بہت بڑی ہوتی ہے۔ وہ اپنے بچپن کے مہاوت کو اپنے بڑھاپے میں بھی پہچانتا ہے۔ ایک ہاتھی پر بوجھ لاد کر لوگ کہیں لئے جاتے تھے کہ جنگل میں شیر کی بو پائے وہ تار کر بھاگ گیا۔ دیر ۲۰ سال کے بعد وہی ہاتھی بہت سے جنگلی ہاتھیوں کے ساتھ پھنسا یا گیا۔ جبکہ اسکی تھام خصلت اور عادت جنگلی ہاتھیوں کی سی ہو گئی تھی کسیکی دھت نہیں ہوتی تھی کہ اسکے قریب جاوے لیکن اسکا پرانا مہاوت اسکو پکار کر اسکے پاس چلا گیا اور کان پکڑ کر بیٹھنے کا حکم دیا۔ اس ہاتھی نے اسکو فوراً پہچان لیا اور بلا عذر بیٹھ گیا اور پھر اسکو اپنے مہاوت کی اطاعت میں کچھ عذر نہ دیا اور ایک دم میں پلوئے ہاتھی جیسا ہو گیا ۰

HINDI.

Translate into English:—

A.

जैसे नदियां अपने जल को समुद्र में बहा कर ले जाती हैं वहां से वे उस जल को पाती हैं इसी प्रकार कुतब जन

को बड़ी प्रसन्नता होती है जब वह अपने उपकार को वहीं पहुंचा देता है जहां से उसने पाया था ।

वह बड़ी प्रसन्नता से अपने उपकारी का गुण मानता है और उससे प्रेमभाव प्रकट करता है और उसका मान और आदर करता है ॥

यदि अपने उपकारी का प्रत्युपकार करना उसके सामर्थ्य के बाहर हो तो वह बड़े प्रेम से उसका स्मरण अपने हृदय में रखता है । वह उसको यादजीवन नहीं भूलता ॥

उदारजन का हाथ आकाश के सेव के समान है जिस के जल से फूल फल और जड़ी बूटी पुष्ट होती है ॥ परन्तु कृतघ्न का हृदय बलुई मरुभूमि के समान है जो आकाश के सब जल को निगल जाती है और अपने में सुखा लेती है और कुछ भी उत्पन्न नहीं करती ॥

## B.

प्राचीन काल में लोग समाचार भेजने के लिये बहुधा कबूतर को कान में लाते रहे । जब रोमवालों ने मोडेना को घेर लिया था तो ब्रूटस और हार्शियस से कबूतरों के द्वारा लिखा पढ़ी होती थी ॥

ग्रीस देश में जब अलिम्पिया के कसरत के खेल होते थे तो बाजी जीतने वाले अपने मित्रों को बहुधा कबूतरों के द्वारा तुरन्त समाचार भेजते थे । आक्सफोर्ड और कैम्ब्रिज के साथ जो पिछले साल नाव का दौड़ हुआ था उसके हार जीत का समाचार सचित्र कबूतर के द्वारा पहिले ग्राफिक समाचार पत्र को पहुंचा था ॥ प्रात्यहिक समाचार पत्र प्रायः समाचार के लिये कबूतर को कान में लाते हैं ॥

कबूतर की तेजी और शक्ति का वर्णन सुनने से आश्चर्य होता है । और ग्रीष्म विद्यास नहीं होता । यथा यह बात प्रामाणिक है कि अमेरिका का सनाचार-ग्राहक कबूतर आटलाण्टिक सागर के पार हो सकता है और सोलह सौ मील २४ घंटे में उड़ता है ॥

C.

हाथियों की स्मृति शक्ति तीव्र होती है । और उनकी आयु भी अधिक होती है । वे अपने वचन के महावत को बुढ़ापे में भी पहचान लेते हैं ।

एक पलुआ हाथी पीठ पर बोझ लादे लिये जाता था कि जङ्गल में बाघ की गन्ध पाकर डर कर भाग गया । छेड़ साल के पीछे वही हाथी कई जंगली हाथियों के साथ फंसाया गया । अब उसके सब स्वभाव और व्यवहार जंगली हाथी के से हो गये थे । किसी को सहन न होता था कि उसके समीप जावे । पर उसका पुराना महावत उसे पुकार कर उसके पास चला गया और दान पकड़ बैठने को कहा । हाथी ने तुरंत उसे पहचान लिया बिना उज़र के बैठ गया । और फिर उसको महावत की आज्ञा में कुछ भी उज़र न रहा । वह एक दारंगी पलुआ हाथी सा हो गया ॥

### MATHEMATICS.—FIRST PAPER.

#### *Arithmetic and Algebra.*

BABU SARAT CHANDRA MUKERJEE, M.A. }  
BABU MOHINI KANTA GHATAK, M.A. } *Examiners.*

1. (a) A multiplication sum having been worked is partially rubbed out; the figures that remain are the entire multiplicand 999 and the last three digits 193 in the product. Restore the complete work.

(b) Simplify  $\frac{1}{1\frac{1}{20}} \times \frac{1 + .0025 \times .05}{1.0025 - .05} - \frac{45 \times .35}{8}$

2. (a) What decimal of Rs. 100 must be added to  $\frac{141}{1496}$  of Rs. 5-10-8 that the sum may be 10 annas?

(b) Extract the square root of 25.6.

3. Two trains start at the same time from Mirzapur and Delhi and proceed towards each other at the rates of 16 and 21 miles per hour respectively. When they meet it is found that one train has travelled 60 miles more than the other. Find the distance between the two stations.

4. Two years and six months ago, I borrowed a sum which with simple interest at 6 per cent. per annum now amounts to Rs. 638-4-0. Find the sum.

5. (a). Divide  $(x \times y)^3 - 8z^3$  by  $x + y - 2z$

(b). Shew that  $(x+2)(x+3)(x+4)(x+5) + 1$  is a perfect square.

6. Resolve into elementary factors:  $39x^2 - 7x - 22$ ,  $4x + 2x^2 + 9$ ,  $a^3 + b^3 + c^3 - 3abc$  and  $(a+b-3c)^2 - a - b + 3c$ .

7. Simplify:  $\left\{ \frac{ax}{x^2 - y^2} - \frac{b}{y - x} - \frac{a}{x + y} \right\} \div \left\{ \frac{ax}{a^2 - b^2} - \frac{y}{b - a} - \frac{x}{a + b} \right\}$

8. Solve: (i)  $\frac{1}{x+a} + \frac{1}{x+b} = \frac{1}{x+a+b} + \frac{1}{x}$

(ii)  $\frac{a+b}{x} - 5b = \frac{a-b}{y} - a$  and

$\frac{a}{x} - 2a = \frac{b}{y} - 3b.$

9. A says to B: Two-fifths of my salary is  $\frac{4}{5}$  of yours, and the difference between our salaries is Rs. 600. What is A's salary?

10. If  $a:b=c:d$ , prove that  $a:a+c=a+b:a+b+c-d$ .



## MATHEMATICS.—SECOND PAPER.

*Euclid and Mensuration.*

BABU HARI DAS GARGARI, M.A.

MAHAMAHOPADHAYAYA PANDIT SUKHAR } *Examiners.*

DWIVEDI,

Define a *parallelogram*, a *gnomon*, an *arc*, and a *segment* of a circle.

2. If two triangles have two sides of the one equal to two sides of the other each to each and have likewise their bases equal, then the angle which is contained by the two sides of the one shall be equal to the angle which is contained by the two sides of the other.

3. Construct a parallelogram which shall be equal to a given triangle and have one of its angles equal to a given rectilinal angle.

4. If a straight line be divided into any two parts, the squares of the whole line and of one of the parts, are equal to twice the rectangle contained by the whole line and that part together with the square of the other part.

5. The diameter is the greatest straight line in a circle; and of all others, that which is nearer to the centre is always greater than one more remote; and the greater is nearer to the centre than the less.

6. Describe a circle about a given triangle.

7. Inscribe a square within an equilateral triangle.

8. In a circle two chords AEB and CED intersect at E. Prove that the angles subtended by AC and BD at the centre are together double of the angle AEC.

9. A rectangular field of 5 acres, 200 yards long, is planted with trees in rows perpendicular to the length—one yard from row to row and one yard from tree to tree in the same row. If a width of a yard all round the field remain unplanted, find the number of trees. If the same number of trees were planted on the circumference of a circle at the same distance apart, what would be the diameter of the circle.

10. Prove the formula for determining the radius of the circle inscribed in a triangle whose sides are given.

The radius of a circle inscribed in an equilateral triangle is 10 feet. Find the area of the triangle.

11. Make a rough sketch and find the area of a field ABCD from the following measures taken in links; and find the length of the perpendicular from A on CD.

BM the perpendicular from B on AC=400

DN the perpendicular from D on AC=300

AM=300, AN=400, AC=625.

### ARABIC.—FIRST PAPER.

MAULVI SYED AMJAD ALI, M.A., *Examiner.*

1. Translate into English :—

نقل ان ضهرة الاسدي كان قتالا للرجال منازلا للابطال و  
كان مع ذلك نحيفا قصيرا تنمو العين عنه - و كان قد قتل  
ناسا من العرب - ثم ان نعيمان بن المنذر اللخمي جرح له  
الهراسد و جعل فيه الجعائل - و اعياء ذلك - فكتب اليه  
با مان و جعل له مائة من الابل ان اتاه - فقدم عليه - فليها  
راه نبت عينه عنه - و ازدراه و استصخر امره - و قال انت  
ضهرة الاسدي الذي بلغني عنه ما بلغ - قال نعم فقال النعيمان  
تسمح بالمعيني خير من ان تراه و ارسلها مثلا - فقال ضهرة  
ابيت اللعن - انها الهرء باصغريه قبله و لسانه فان قاتل  
قاتل بجنان - و ان نطق نطق بلسان - و ماتكال الرجال  
بغفران - ولا توزن بهيزان - فاعجب ذلك النعيمان - و قال لله  
ابوك \*

2. Make a list of the various parts of speech contained in the above, giving singulars of plurals and plurals of singulars

3. Translate into English :—

انهض الي الهعالي \* و اجسر ولا تبال  
وخذ من الزمان \* حظا فانك فان  
من عشق الهعالي \* لم يخف الليالي  
الهمم \* واليهج الابيه

تقرب الهنيئـه \* منك و الامنيـه  
 وربها نال الفتـي \* اضعاف ما كان رجا  
 لولا خطار عنتر \* نفسه لم يذكر  
 الهجد بالمخاطرة \* والنصر بالمصابرة  
 من خشي العواقبا \* وشارو التجاربا  
 لم يبلغ المراتبا \* ويعزز الجنابا

4. Explain the allusion or allusions in question 3.

5. Translate into English:—

عيني جودا بارك الله فيكما \* علي ها لكين لا تقري لهما مثلا  
 علي سيدا البطحا وابن رئيسهما \* وسيدة النسوان اول من صلي  
 مهذبة قد طيب الله خبيهما \* مباركـة و الله ساق لها الفضلا  
 مصابهما ادجي لي الجود والهوا \* فبت اقاسي منهما الهم والتمكلا  
 لقد نصرا في الله دين محمد \* علي من بغى في الدين قد رعيالا

6. Write out the poetical extract, in question 5 with vowel marks: and say who are meant by هالكين

7. Translate into English; and point out the antecedent of فيها mentioning the sense of the antecedent:—

اعرابي سرق غاشية من علي سرج ثم دخل المسجد يصلي  
 فقرا الاسام هل اتك حديث الغاشية فقال يا فقيه لا تدخل في  
 الفضول فلما قرأ وجوه يومئذ خاشعة قال خذو غاشيتكم ولا  
 يخشع وجهي لبارك الله لكم فيها ثم رماها من يده و خرج \*

8. Repeat any six Arabic complets from memory; give vowel marks to your writing; and translate them.

## ARABIC.—SECOND PAPER.

MAULVI SYED AMJAD ALI, M. A., Examiner.

1. Translate the following into Arabic and give vowel marks to your translation:—

O God! Thee we worship and from Thee we ask help. Show us the right path. I saw the two horses of the king galloping fast

and breathing hard. Two men cried. The woman quarrelled with her husband. The wife and the husband quarrelled with each other. He had three companions. I gave him five hundred *dirhems*. Zaid is the most learned of his father's sons. Zaid is more learned than his brothers. This book extends over three hundred and fifty seven pages. Zaid, who is a good horseman, came to me. Omar went away on horseback. This box contains diverse articles. I saw a Musalman woman crying and wailing. Joseph is your brother. Call your brother and tell him to fetch a quantity of wheat for me from the market. Zaid went to Omar and took Bakar to him. John brought happy news to me. Is John standing? Did he stand? If Omar comes to me to-day I will give him two *dirhems*.

2. Translate the following into English :—

حب الهمال يفسد المال - ان الهمة تضحك بالامنية - صدور  
الا حراز قبور الاسرار - من اطاع غضبه اضاع اديه - من لم  
يقنع لم يشبع - الثواب يحصل بالعمل لا بالكسل - من قل  
صدقه قل صديقه - فخور بفضلك خير منك باصلك - من  
كثرت اياديه قلت اعاديه - الخطا للفقير مال والمغني جهال -  
عدو عاقل خير من صديق جاهل - صديقك من صدقك لامن  
صدقك - الدنيا دار الخور لا دار السرور - الدنيا ظل زائل  
والشباب ضيف راحل - بعد الكدر صفو وبعد الهطو صفو -  
لا يعرف النور من النار الا الابرار - اترك الدنيا لطالبها واطرح  
الجيعة لكاتبها - الجاهل يطلب الهمال والعاقل يطلب الكمال -  
الرزق مقسوم - الحريص محروم البخيل مدموم - الحسنود  
مغموم - صبرك علي الاكتساب خير من حاجتك الي الاصحاب -  
القليل مع التدبير خير من الكثير مع التبذير - اطلب الجار  
قبل الدار - والرفيق قبل الطريق - اذا طلبت العزفا طلبه  
بالطاعة - واذا طلبت الغني فاطلبه بالقناعة - لافرح الا  
بالحسنات ولا حزن بالسيئات \*

3. How do the Arabic Grammarians divide the several parts of speech? Mention these divisions and their subdivisions, with their examples.

4. Mention the اسباب منع صرف ; giving instances in each case.
5. In what do افعال and تفعیل agree, and in what do they differ ? Illustrate your answer with examples.
6. Mention the حروف النداء , distinguishing their usages from each other.

### PERSIAN.—FIRST PAPER.

MAULVI SYED AMJAD ALI, M.A. }  
MUNSHI MAHESH PRASAD. } *Examiners.*

1. Translate the following into English :—

سرخ زنبورے ہر مگس عسل زور آورد تاوے راطعہ خود سازد۔ ہزاری ہر آمد کہ با وجود این ہمہ شہد و عسل مرا چہ محل کہ آنرا بگذاری و بہن رغبت آری۔ زنبور گفت اگر آن شہد است تو شہد را کانی۔ اگر آن عسل است تو سرچشمہ آنی \*  
\* قطعہ \*

ای خوش آن مرد حقیقت کہ بہ پیغام و سلام  
رو بتابد بسوی مائندہ وصل رو  
اصل چون روے نماید زبس پردہ فرع  
فرع را باز گذارد بسوی اصل رو

2. Explain in Persian the قطعہ in question 1. as clearly as you can.

3. Translate the following into English :—

راجه نرسنگہ دیو از راجپوتان بندیلہ کہ رعایت یافتہ من است و در شجاعت و نیکذاتی از امثال و اقران خود امتیاز تہام دارد بہانصب سہ ہزاری سرفرازی یافت۔ باعث ترقی و رعایت او آن شد کہ در اواخر عہد پدر بزرگوارم شیخ ابوالفضل را کہ از شیخ زادہائے ہندوستان بہزیت فضل و دانائی امتیاز تہام داشت و ظاہر خود را بزور اخلاص آراستہ بقیامت گرانسنگ بہدرم فروختہ بود از صوبہ دکن طلب

داشتند- و چون خاطر او بہن صاف نبود ہمیشہ در ظاہر و باطن سخنان مذکور میساخت- و درین ایام کہ بنابر افساد فتنہ انگیزان خاطر مبارک واکد بزرگواریم فی الجملہ از من آزر دگی داشت یقین بود کہ اگر دولت ملازمت دریابد باعث زیادتیی آن غبار خواهد گشت و مانع دولت مواصلت گردیدہ کار بجای خواهد رسانید کہ بضرورت از سعادت خدمت محروم باید گردید- چون ولایت نرسنگہ دیو برسراہ او واقع بود و در آن ایام در جرگہ متہمردان جا داشت باو پیغام فرستادم کہ اگر سر راہ بران مفسد فتنہ انگیز گرفتہ اورا نیست و نابود سازد رعایت ہاے کلی از من خواهد یافت- توفیق رفیق او گشتہ در حینے کہ از حوالی ولایت اومیگشت راہ بر او بست- و بر اندک ترددے مردم اورا پریشان و متفرق ساختہ اورا بقتل آورد و سراورا در الہ آباد نزد من فرستاد- اگرچہ این معنی باعث آزر دگی خاطر اشرف حضرت عرش آشیانی گردید غایۃ این کار کرد کہ من بے ملاحظہ و دغدغہ خاطر عزیمت آستان بوس درگاہ پدر خود کردم- و رفتہ رفتہ ان کمورت ہا بصفا مبدل گردید \*

4. Explain the following:—

احدی - آبادانی - عرش آشیانی - ہمایون - بختی -

5. Translate into English the following:—

چہ شب ہا نشستم درین دیو گم  
کہ حیرت گرفت آستینم کہ قم

محیط است عالم ملک بر بسیط

قیاس تو بر وے نگردد محیط

نہ ادراک در کنہ ذاتش رسد

نہ فکر ت بغور صفاتش رسد

توان در بلاغت بسبحان رسید

نہ در کنہ بیچون سبحان رسید

که خاصان درین ره قوس رانده اند  
 بلا احصی از تگ فرو مانده اند  
 نه هر جاے مرکب توان تاختن  
 که جاها سپر باید انداختن

6. Explain, in Persian, the allusions in question 5.

7. Translate into English the following:—

زایش را ز تنهائی چو جان کاست  
 برآء یوسف از نه خانه ساخت  
 بدو کردند نه بستی حواله  
 چو موسیقار پر فریاد و ناله  
 چو کردے از جدائی ناله آغاز  
 جدا بر خاستی از هر نه آواز  
 چو از هجر آتش اندر وی گرفته  
 ز آتش شعله در هر نه گرفته  
 در آن نه بست بود افتاده خسته  
 چو صیدے تیرها گردش نشسته  
 وای از ذوق عشقش چون اثر بود  
 برو هر تیر گوئی نیشکر بود

8. Analyse the first couplet in Persian, in question 7.

9. Write out at least half a dozen of Persian couplets not contained in this question paper, from one or several good Persian poets, refer them to their authors, and translate them.

### PERSIAN.—SECOND PAPER.

MUNSHI RAM KISHEN.

MAULVI SYED KALAN, M. A.

} Examiners.

1. Translate into English:—

بالجبلہ دہایون بادشاہ بہ ہزار محنت و مشقت (a)  
 در آگرہ رسید و در انجا توقف صلاح ندانستہ راہی شد و بعد

قطع مسافت در لاهور رسیده با برادران مجلس مشوره آراست و هرگونه کنگاش در میان آمد-هریک از برادران موافق راے خود برخلاف رضاے همایون سخنان دور از کار مذکور کردند-همایون فرمود که فردوس مکاني یعنی بابو بادشاه هندوستان را بچه مشقت تسخیر کرده اگر از بے اتفاقي شما امروز از حیطة تصرف بر آید بادشاهان روع زمین شما را چه خواهند گفت و من هرگاه تمام پسر غنیم برورم اگر بعنایت الهی فتح و نصرت روی دهد شما بچه رو مارا خواهید دید و اگر عیاذا بالله معامله بطور دیگر شود شما را در هندوستان بسر بردن نهایت مشکل است-چون کامران مرزا را شیرخان از راه خدیعت امیدوار کرده بود که ولایت لاهور برو مسلم داشته باشد مرزا مذکور از معاونت همایون بادشاه اجتناب ورزیده صلاح جنگ نداد بلکه باتفاق عسکری مرزا روانه کابل گردید\*

آورده اند که در ولایت حلب پیشه بود مشتعل بر (ب) درخت بسیار و در آنجا شیرے بود که همواره بخون ریختن جانوران مشغول بودی - سیاه گوش که ملازم او بود چون صورت حال بدین منوال دید از نتیجه ستمگاری او بترسید و میخواست که ترک ملازمت گیرد - درین فکرو روع بصحرا نهاد و بزکنار پیشه موشے دید که بجهت تمام بیخ درختی می پرد - درخت بزبان حال با او میگوید ای ستمگار چرا به قبر آزار بنیاد حیات مرا زیروزبر میسازی و مردم را از راحت سایه و منفعت میروے من محروم میکنی - موش بزاري او التفات نمانده بهمان جفاکاری اشتغال داشت که ناگاه مارے از کمین بیرون آمد و قصد موش کرده بیکدم او را فرو برد - سیاه گوش ازین صورت تجربه دیگر برداشت و دانست که آزارنده جز آزار نه بیند - در همین حال که مار از خوردن موش



فارغ شده در سایه درخت حلقه زد خار پشتمی در آمد و دم  
 مار بدهن گرفته سر در کشید - مار از غایت اضطراب خود را  
 بروی می زو تا همه اعضایش بنوک خار سوراخ دار شده جان  
 بهالک دوزخ سپرد - سیاه گوش از صفحه اعتبار رقعی دیگر  
 مشاهده نمود - ناگاه روباهی گرسنه بدانجا رسید و خار پشت  
 را دیده در جست و حلقش بگرفت - و سرش برکنده باقی اجزا  
 را بخورد - هنوز روباه را فراغت کلی نشده بود که سگ  
 جهنده چون گرگ درنده از گوشه در آمد و روباه را از هم بدنید -  
 سیاه گوش را این تجربه ها مرجب مزید یقین گشت و بهلازم  
 شیر آمده اجازت رفتن ازان بیسه طلبید \* بیت \*

مکن بدی که بدی را اجزای بدی باشد  
 بکیش اهل مروت بدی ددی باشد

Translate into Persian:—

(a) Alexander the Great, King of Macedonia, having conquered Darius, King of Persia, took an infinite number of prisoners; and among others, the wife and mother of Darius. Now according to the laws of war, he might with justice have made slaves of them: but he had too much greatness of soul to make a bad use of his victory; he therefore treated them as queens, and showed them the same attention and respect, as if he had been their subject; which Darius hearing of said, that Alexander deserved to be victorious and was alone worthy to reign in his stead. Observe by this, how virtue and greatness of soul, compel even enemies to bestow praise.

(b) My dear boy,

*July the 24th 1793.*

I was pleased with your asking me, the last time I saw you, why I had left off writing; for I looked upon it as a sign that you liked and minded my letters: if that be the case, you shall hear from me often enough; and my letters may be of use, if you will give attention to them; otherwise it is only giving myself trouble to no purpose; for it signifies nothing to read a thing once, if one does not mind and remember it. It is a sure sign of a little mind, to be doing one thing; at the same time to be either thinking of another, or not thinking at all. One should always think of what one is about. When one is learning, one should not think of play; and when one is at play, one should not think of one's learning. Adieu.

*Chesterfield.*

## SANSKRIT.—FIRST PAPER.

BABU DEBENDRA NATH CHAKRAVARTI, M.A., Examiner.

1. मारजारोऽवदत् । अहमत्र गङ्गातीरे नित्यस्नायी निरामिषाशी ब्रह्मचर्येण चान्द्रायणव्रतमाचरंस्तिष्ठानि । युष्मांश्च धर्मज्ञान् मम विश्वासभूमयः पक्षिणः सर्वे सर्वदा समाग्रे प्रस्तुवन्ति । ततो भवद्भ्यो विद्यावयोवृद्धेभ्यो धर्मं श्रोतुमिहागतः । भवन्तश्चेदृशाधर्मज्ञा यन् मामतिथिं हन्तुमुद्यताः । गृहस्थस्यैव च धर्मः—

अरावप्युचितं कार्य्यमातिथ्यं गृहमागते ।

छेतु पार्श्वगतच्छायां नोपसंहरते द्रुमः ॥

यद्यप्यन्नं नास्ति तदा प्रीतिवचनेनापि तावदतिथिः पूज्यः ।  
तथाचोक्तं ।

तृणानि भूमिरुदकं वाक्चतुर्थी च सूनृता ।

एतान्यपि ज्ञातां गेहे नोच्छिद्यन्ते कदाचन ॥

- Translate the above extract into English.
- Parse the underlined words.
- Decline वयस्, छेतृ, प्रीति, वाक् and सत् in the nominative (प्रथमा), genitive (षष्ठी), dative (चतुर्थी), locative (सप्तमी) and accusative (द्वितीयर) cases respectively.
- Conjugate वद्, ज्ञा, स्तु, हन् and ह in the second preterite (लिट्), first preterite (लङ्), present tense (लट्), imperative (लोट्), and second future (लृट्), respectively.
- Change the voices of the shlokas quoted above.
- State the rules justifying the एण in चान्द्रायणं, and ब्रह्मचर्येण.
- Expound all the तत्पुरुष compounds in the above extract.

2. Explain fully in Sanskrit :—

- (a) न स्खलपस्य कृते भूरि नाशयेन् सतिमान्नरः ।  
एतदेव हि वाशिङ्ग्यं यत्स्खलपाद् भूरिरन्नगम् ॥
- (b) साता शत्रुः पिता वैरी येन वालो न पाटितः ।  
न शोभते सभानध्ये हंसमध्ये वक्रो यथा ॥
- (c) सङ्गमयति विधौ न नीचगापि नरं सरित् ।  
समुद्रनिव दुर्धर्षं नृपं भान्यमतः परम् ॥
- (d) यच्चावृणोत्यवितथेन कर्नगा  
ऋतं ब्रुवन्नमृतं संप्रयच्छन् ।  
तं द्वै सन्येत पितरं नातरं च  
तस्मै न द्रुह्येत् कृतमस्य जानन् ॥
- (e) इह वा तारयेद् दुर्गादुत वा प्रेत्य भारत ।  
सर्वथा तारयेत् पुत्रः पुत्र इत्युच्यते ब्रुधैः ॥

- (1) Decline भूरि in the ablative case (पञ्चमी)  
(2) Parse the underlined words.  
(3) Who is referred to by भारत in extract (e)?  
(4) Change the voices of the extracts (d) and (e).

3. Turn into simple prose :—

- (a) एतावानेव पुरुषः कृतं यस्मिन् नश्यति ।  
यावच्च कुर्व्यादन्योऽस्य कुर्व्याद् बहुगुणं ततः ॥
- (b) ये च वाणैर्न विद्वयन्ति विविक्तनपरापरम् ।
- (c) शब्दवेध्यं च विततं लघुहस्ता त्रिगारदाः ।  
शेषमेव गते यत् स्यात् तत् प्रसीदतु मे मुनिः
- (d) यद्याचरित कल्याणि शुभं वा यदि वाशुभम् ।  
तदेव लभते भद्रे कर्त्ता कर्नजपात्मनः ॥

- (1) Expound the Samasas in the underlined words
- (2) Write out the present tense of the root जन्-
- (3) Translate extract (a) into English or Hindi.
- (4) Write down the meanings of विविक्त अपरापर and लघुहस्ताः

4. Write down the meanings of the following words :—

एकपदी, प्रविद्धं, व्यलीकं, अनुक्रोशः, व्यष्टिः, परि-  
ग्राह्यः, सप्त, बारः, विप्रलब्धः, and निस्त्रिंशः

5. अपास्य हि रसान् भौमांस्तप्त्वाच जगदंशुभिः ।

परेताचरितां नीमां रविराचरतेदिशम् ॥

- (a) Explain the formation of the words भौमः and जगत्.
- (b) Is आचरते grammatically correct ?
- (c) Write out the second preterite (लिट्), 1st person, singular, dual, and plural of the root of परतः.
- (d) Change the voice of the above extract.
- (e) Account for the accusative case (द्वितीय) in दिशं.

### SANSKRIT.—SECOND PAPER.

BARU DEBENDRA NATH CHAKRAVARTI, M.A., *Examiner.*

1. Translate into English :—

- (a) Clever people often do that by care and thought, which strength could not bring about.
- (b) Silver is white and shining. Rupees are made of silver. Silver comes from a great way off.
- (c) The good boy loves his parents. He always minds what they say to him, and tries to please them. He likes to read, and to learn something every day. He is kind to his brothers and sisters. He never tells a lie.
- (d) It is a very pleasant morning; the sun shines, and the birds sing on the trees.

2. Translate into English :—

(a) उपकारिषु यः साधुः साधुत्वे तस्य को गुणः ।

अपकारिषु यः साधुः न साधुः सद्भिरुच्यते ॥

(b) शरीरस्य गुणानाञ्च दूरस्त्यन्तमन्तरम् ।

शरीरं क्षणं विध्वंसि कल्पान्तरस्यायिनो गुणाः ॥

(c) असम्भवं हेममृगस्य जन्म

तथापि रामो लुलुभे मृगाय ।

प्रायः समासन्नविपत्ति काले

धिषो हि पुंसां मलिनीभवन्ति ॥

(d) नमन्ति फलिनी वृक्षा नमन्ति फलिनी जनाः ।

शुष्कावृक्षाश्च सूखाश्च न नमन्ति कदाचन ॥

(e) अत्र भारते कनकपुरं नाम नगरमासीत् तत्र । सुजा-

कसनामा राजा बभूव । स विद्यावान्, गुणघ्नाः, भक्तिमांश्च ।

याचके दृष्टे तस्य सहती प्रीतिः । तस्य सज्जनो नाम मित्रम-

भवत् । नाम्ना सज्जनः परन्तु कर्मणासी दुर्जनः । एकदा नि-

र्जने जाते राजा तुरङ्गमधिरुह्य चचाल । तस्य मित्रं सज्जनः

तमनुजगाम । मार्गे व्रजतोर्द्वयोरिति संलापो बभूव । नृपेण क-

थितं भोः सज्जन ! ब्रूहि कामपि वाचांम् । तेनोक्तं, राजन् ?

पुण्यपापयोः किं श्रेष्ठं ? राजा प्राह, धर्मोऽज्जयः अधर्मेण नयः

इति बालका अपि जानन्ति । सज्जनेनोक्तं, अहं मूर्खः, परं

कथय, किं पुण्यं किं पापं वा ? राजा आह—

वचः सत्यं गुरौ भक्तिः श्रुत्यादानं दयादिर्दत्ते ।

धर्मोऽयमिष्टसंयोगकरोऽनिष्टनिवर्तकः—

एतस्मात् विपरीतोऽधर्मः ।

# HISTORY.—FIRST PAPER.

M. CROSSE, ESQ., M. A.

REV. L. PHILLIPS, M.A.

} Examiners.

## *English and Indian History.*

1. Give a brief account of the wars with Scotland in the reign of Edward I, and with France in the reign of Edward III.

2. (a) What were the claims put forward by the impostors who claimed the throne during the reign of Henry VII. ? What was their fate ?

(b) What attempts were made to restore the Stuart dynasty ? Give a short account of each.

3. Describe how Scotland Ireland were united with England. Give the dates of each union.

4. Write brief notes on the following :—

Benevolences, Treaty of Dover, Mehemet Ali, The Education Act, The Mahdi.

5. What led to the invasion of Egypt in 1882 ? Give some account of it.

6. Narrate the chief events in the reign of Akbar, noting his policy, religious views, and character.

7. When was the East India Company started, and what were the causes that led to its down fall ?

8. Give a short account of the Sikhs up to the date of their conquest by Lord Gough.

9. State what you know of the Imperial Assemblage at Delhi.

10. Write short notes on :—

"The heavenly bride," Tom Coryat, Dr. Fryer, Jeswant Rao, The Convention of Wurgau.

# GEOGRAPHY.

T. R. READ, ESQ., M.A.

B. D. GORDON, ESQ., F.S. Sc.

} Examiners.

1. (a) Define a peninsula, a lake, an isthmus, a bay, a strait, a cape, an island, a river.

(b) When it is noon at Calcutta ( $88^{\circ} 28' E$ ) what time is it at Chicago ( $87^{\circ} 35' W$ )?

2. Give the *boundaries, chief rivers, principal productions, and six important towns* of France.

3. What and where are—Anglesea, Bolan, Buluwayo, Demavend, Kra, Maelstrom, Negrais, Panir, Shat-el-Arab, Titicaca, Tsugaru, Yucatan?

4. Draw a map of the Mediterranean Sea, showing its arms or branches, its chief island, and the countries along its shores.

5. Distinguish between—*stulactile* and *stalogmite*, *isothermal* and *sobaric* lines, *land* and *sea* breezes, *continental* and *insular* climate.

6. Into what classes are rocks divided? Briefly describe the origin of each class.

7. Explain the difference between *rain* and *dew*; and give some account of the South-West Monsoon.

8. Enumerate the modes of formation of lakes, and say why the water of some lakes is salt and that of others fresh?

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## POLITICAL ECONOMY.

J. G. JENNINGS, Esq., *Examiner.*

1. Explain the definition of Money as a measure of value and a medium of exchange.

2. Distinguish between Productive and Unproductive Consumption, giving examples. Show that Capital in order to fulfil its function must be consumed.

3. Show that a demand for commodities is not a demand for Labour, and give examples.

4. Distinguish between Value and Price, and explain the statement that the price of commodities must be as to equalise the demand with the supply.

5. Discuss whether Rent increases the price of Agricultural Produce.

6. Distinguish between the Cost of Labour, and the Wages of Labour, and show that the former is a function of three variables.

7. Show that foreign trade will be advantageous to both countries engaged, only when the relative cost of the commodities exchanged is different in the two countries.

8. Distinguish between Credit and Capital, and between the services which they severally render to the production of wealth.

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## ELEMENTARY PHYSICS.

J. MURRAY, ESQ., M.A., *Examiner*.

1. What do you mean by a chemical element? Mention the elements in the following:—Indigo, Lime, Sulphur Alumina, Phosphorus, Blende, Brass, Zinc, Steel, Soda, Mercury, Alum, Antimony. Give as far as you can, the components of those which you consider compounds.

2. A candle is lighted and gradually burns away and disappears. A piece of sugar is put into hot water and after a short time disappears. A saucer with a little water in it is exposed to the hot wind; after sometime the saucer is found dry, and the water has disappeared. Trace the cause of the disappearance in each case.

3. Describe experiments to illustrate the difference in the chemical actions that accompany the life and growth of plants and animals.

4. Describe experiment shewing that hydrogen and oxygen can be got from water, and another shewing that water is made up of nothing but hydrogen and oxygen.

5. If you were asked to prepare chlorine, what materials would you require? Describe carefully how you would prepare it when you got them.

6. What is the difference between the properties of cast-iron and wrought-iron? How can the latter be made from the former?

7. A piece of wood and a piece of iron of the same size and shape are both placed on the surface of the water in a tank and then let go. The former sinks down a little way, but the latter sinks completely and disappears. What explanation can you give of the difference in their behaviour?

8. A pair of bullocks are dragging a cart along a road and are said to be doing work. Describe carefully what is meant by this. It is found that one pair of bullocks can in one day lift a bucket containing 20 gallons of water 50 times from the bottom of a well 40 feet deep, in the same time another pair lift a bucket one-third the size of the other 60 times from a well 30 feet deep. Compare the amount of work done by each pair in one day.

9. Describe an experiment to shew that the temperature of water when boiling depends only on the pressure on the surface of the water.

10. What is meant by the statement that the latent heat of steam is 537 and the latent heat of ice 80? Describe some simple experiment to prove the truth of the former statement.

## BOOK-KEEPING.

B. D. GORDON, ESQ., F. S. Sc., *Examiner*.

1. (a) What is meant by *balancing an account*?

(b) Give the *four rules* for balancing *goods account*.

(c) When is an account said to be *closed*?

(d) *Make out cash account and balance*:—

February 1, Cash in hand, £50.—Received from J. Stuart £39. 4s. 7d.—February 4, Paid Mr. Salmon, £42. 10s. 2d.—February 7, Received from Mr. Short, £200—February 9, Paid Mr. Swift, £72. 12s. 3d.—February 11, Paid Mr. Ship-



pey, £63. 6s. 7d.—February 12, Paid Mr. Steady, £9. 9s. 0d.—February 17, Received from Mr. South, £100—February 19, Paid Mr. Shallow, £12 2s. 4d.—February 22, Paid Mr. Saintey, £5.—February 25, Received of Mr. Scammell, 2s. 6d.—February 28, Paid Mr. Saling, £11. 11s. 0d.

2. *Journalise the following :—*

1. Sold goods for cash. 2. Bought goods of J. Smith for cash. 3. Paid J. Smith £100. 4. Drew cheque for trade expenses. 5. Drew cheque for private expenses. 6. Paid into bank. 7. Bought new house for cash. 8. Rent due to Landlord. 9. Paid rent due this day. 10. J. Robertson drew on me. 11. Received J. Robertson's acceptance. 12. Cash short this day 3s. 6d.

3. 1. What is a *bill*. 2. In what *two forms* are bills made out? 3. Is a *Promissory Note* a *Bill Payable* or a *Bill Receivable*? 4. What is respectively meant by *Endorsing* a Bill, *Accepting* a Bill, *Discounting* a Bill, *Paying* a bill, *Dishonoring* a Bill and *Renewing* a Bill? 5. What becomes of a Bill at last?

4. *Open the books, Enter the Transactions, and Prove:—*

May	1.	Cash in hand	...	...	£100
"	1.	L. S. Cooper owed me	...	...	10
"	1.	I owed C. Carter	...	...	70

*Transactions.*

May	1.	Bought goods of C. Carter	...	...	200
"	7.	Sold " to L. S. Cooper	...	...	10
"	8.	" " " C. Collins	...	...	30
"	12.	Paid C. Carter	...	...	140
"	12.	L. S. Cooper pays me	...	...	15
"	30.	Paid for Trade expenses	...	...	2
		Private expenses	...	...	10
"	31.	Value of stock	...	...	175

5. (1) *Journalise*, (2) *Post*, (3) *Prove:—*

				£	s.	d.
Dec.	1.	Cash in hand	...	...	7	8 2
"	1.	Goods in hand	...	...	194	10 0
"	1.	I owe Mr. Hardy	...	...	12	0 0
"	1.	Mr. Harris owes me	...	...	20	0 0

Dec.	1.	Houghton and Son owe me	...	35	0	0
"	1.	Mr. Harris settles his account, less 5% Discount	...			
"	3.	Sold goods to W. Heaver	...	8	8	0
"	10.	Bought goods of M. Hardy	...	14	11	2
"	10.	Paid Mr. Hardy	...	25	0	0
		Discount received	...	1	11	2
"	15.	Sold goods to Howell and Co.	...	13	0	0
"	31.	Do. do. For Cash	...	93	12	2
This is supposed to be the sum total of Monthly Cash Sales						
"	31.	Trade expenses	...	2	0	0
"	31.	Personal expenses	...	5	0	0
"	31.	Value of Stock	...	124	1	6

### GEOMETRICAL DRAWING.

M. CROSSE, ESQ., M. A., *Examiner.*

*Time 2 hours.*

1. To construct a Right-angled Triangle, having given the hypotenuse BC and the perpendicular distance DE from the right-angle A to BC.

2. Construct a quadrilateral ABCD from the following data. AD 80 feet; AC 120 feet; angle DAC  $60^\circ$ ;  $BC = \frac{1}{2} AC$ ;  $AB = \frac{3}{2} BC$ , Scale 80 feet to an inch.

3. Draw a tangent to an arc from a given point P outside it without using the centre.

4. Divide a line AB proportionally to a given divided line CD.

5. The given line AB is 4 feet 8 inches long by scale. Produce it so as to make it 14 feet.

6. Construct a diagonal scale to shew inches, tenths, and hundredths.

7. In a given Isosceles Triangle to inscribe two equal circles each touching two sides of the triangle and the other circle.

8. Inscribe any regular Polygon as many semi-circles as the figure has sides, each semi-circle touching two sides of the Polygon.

N. B.—All working lines must be shewn.

## ENTRANCE AND SCHOOL FINAL-EXAMINATIONS, 1895.

## ENGLISH.—FIRST PAPER.

C. H. LINTON, ESQ., M.A.	...	} <i>Examiners.</i>
REV. G. B. RULACH.	...	
T. R. READ, ESQ., M. A.	...	

1. Give, in your own words, the meaning of the words and phrases printed in bold type:—

(a) "Grace Darling retired to rest on the night of the storm, a *girl*."

"Whom there was none to praise,  
And very few to love ;"

but ere many days were over, she was the most famous woman in the land. The story of her daring deed was wafted all over Europe ; innumerable testimonials poured in all her—on her—one public subscription of £ 700 ; portraits of her appeared in all the shop windows ; ballads in her honour were sung about the streets ; and scores of suitors sought her hand in marriage. But amidst all the tumult of applause, Grace never forgot the modesty which is the true handmaid of heroism ; and nothing could induce her to quit the lonely light-house.

*Who is the Grace Darling mentioned in the above passage? What daring deed did she do? What is heroism ; and how may modesty be said to be its true handmaid? What do you understand by—"a girl"*

"Whom there was none to praise,  
And very few to love ;"

*Parse, girl. What is a ballad? Distinguish between testimonials and gifts.*

(b) "My dear *Hercules*," said she, " I find you are very much divided in your own thoughts upon the way of life you ought to choose ; be my friend and follow me : I will lead you into the possession of pleasure and out of the reach of pain, and remove you from all the noise and disquietude of business. The affairs of either war or peace shall have no power to disturb you. Your whole employment shall be to make your life easy and to entertain every sense with its proper gratifications."

Who addresses these words to Hercules? What were the inducements held out by her rival? Whose offer did he accept? The tale from which this extract is taken is called an allegory. What is an allegory?

2. Write out the following pieces of poetry in prose: bring out their meaning fully. A mere substitution of synonyms will not be accepted. The general purport of each passage must be expressed.

(a) Unfathomable Sea? whose waves are years,  
Ocean of time, whose waters of deep woe  
Are brackish with the salt of human tears!  
Thou shoreless flood, which in thy ebb and flow  
Claspest the limits of mortality!

Why is the sea spoken of as a shoreless flood; and how does it at the same time clasp the limits of mortality. Parse, Ocean.

(b) In that mansion used to be  
Free-hearted Hospitality;  
His great fires up the chimney roared,  
The stranger feasted at his board;  
But like the Skeleton at the feast,  
The warning time-piece never ceased,

“Forever—Never!  
Never—Forever!”

The word Hospitality in the above verse is said to be personified:—What is meant by the word personified? What is the ‘Skeleton at the feast;’ and how may a time piece be compared to a ‘Skeleton at the feast?’ What thought is suggested by the concluding words, “Forever—Never! Never—Forever!”? In what respect are these words peculiarly appropriate at the close of each verse? Parse hospitality.

3. Give in your own words the meaning of the following Extracts:—

(a) Our queen’s crown may moulder; but she who wore it will act upon the ages which are yet to come.

(b) Thou dost preserve the stars from wrong,  
And the most ancient heavens, through Thee, are  
fresh and strong.

(c) It is by woman that nature writes on the hearts of men.

(d) A mock humility is one of the worst forms of pride.

(e) Kind words never blister the tongue of lips.

(f) The Empire of the tributary seas  
That lave thine island o'er.

(g) Between fame and true honour a distinction is to be made. The former is blind and noisy applause; the latter, more silent and internal homage.

4. Give the meaning of the following words and phrases; select any three words and any three phrases from among them and show, by short sentences, how you would use them:—

(1) It is all one; (2) to keep up his spirits; (3) easier said than done; (4) to set at naught; (5) in consideration of the benefit; (6) to his heart's content; (7) household gods; (8) strain every nerve; (9) sanitarium; (10) predatory; (11) sophistry; (12) aphorism; (13) vociferated; (14) asceticism; (15) stumblingblock; (16) voluntarily.

5. Who are the authors of the following poetical extracts? Give, fully and clearly, the sense of the extracts:—

(a) Never morning wore  
To evening, but some heart did break.

(b) There is a tide in the affairs of men  
Which, taken at the flood, leads on to fortune.

(c) Stern Daughter of the voice of God!  
O Duty! if that name thou love,  
Who art a light to guide, a rod  
To check the erring and reprove.

(d) Good name in man or woman  
Is the immediate Jewel of their souls.

6. Passages from books not prescribed.

Re-write the following passages in your own words; bring out their meaning fully:—

(a) Of all the solitary insects I have ever remarked, the spider is the most sagacious; and its actions, to me who have attentively considered them, seem almost to exceed belief. This insect is formed by nature for a state of war, not only

upon other insects, but upon each other. For this state nature seems perfectly well to have formed it. Its head and breast are covered with a strong natural coat of mail, which is impenetrable to the attempts of every other insect; and its belly is enveloped in a soft pliant skin, which eludes the sting even of a wasp. Its legs are terminated by strong claws; and their vast length, like spears, serves to keep every assailant at a distance.

- (b) Deeper, deeper let us toil  
 In the mines of knowledge;  
 Nature's wealth and learning's spoil  
 Win from School and College;  
 Delve we there for richer gems  
 Than the stars of diadems.
- 

## ENGLISH.—SECOND PAPER.

### GENERAL GRAMMAR.

H. R. WILLIAMS, ESQ.	} <i>Examiners.</i>
R. MCGAVIN SPENCE, ESQ., M. A.	
H. F. MANLEY, ESQ., M. A.	

1. (a) Form abstract nouns from :—*hate; priest; young; high; give; cruel.*

(b) Form adjectives by adding suffixes to :—*awe; man; burden; south; slave; storm.*

(c) Form verbs from :—*fright; throne; spark; terror; sympathy; food.*

(d) Compare :—*ill; patient; late; rough; gay; bitter.*

2. Parse the words in darker type :—

(a) Weather permitting, we shall start on our journey to-morrow.

(b) I asked him where he lived.

(c) He has entered into the business heart and soul.

(d) I could do nothing but weep.

(e) What grieved me most of all, my friend turned against me.

(f) We were successful at our examination, though we scarcely expected it.

(g) Better be with the dead than lead a life like this.

3. Form four sentences using—*if*; *should*; *had*; and *were*; to express condition.

4. Parse the italicised words in the following :—

*None to have seen his free-born air,*

*Had fancied him a captive there.*

5. Write the following sentences, using for the italicised word in each, without altering the sense, the one given after it in brackets :—

(a) He confessed his fault and was *forgiven* (overlook.)

(b) He was a great *help* to me (service).

(c) I do not *trust* him (confidence).

(d) He *laughed* at me (ridiculed).

(e) My watch was *stolen* (robbed).

(f) *Condence* your statement as much as possible (concise).

6. Analyse according to the subjoined form :—

Sentence.	Kind of sentence.	Subject with adjunct.	Predicate.	Completion.	Extension.

Rome with her palaces and towers,

By us unwished, unraff

Her homely huts and woodland bowers

To Britain might have left ;

Worthless to you their wealth must be,

But dear to us ; for they were free.

7. Fill up the blanks in the following sentences with appropriate preposition :—

(a) He has set my authority—nought.

(b) It will devolve—you to see if he is qualified—the appointment.

(c) Your conduct is subversive—all discipline.

(d) He exposed himself—the risk—being made answerable—the loss.

(e) The people were abolishing the law, but the House of Lords had objection—this course.

8. Write sentences illustrating the use of the following idioms, and explain the meaning of the phrase in each case. The sentence must be such as to show that the idiom is understood :—

(a) Called to account.

(b) Gave no quarter.

(c) Gives way to.

(d) At your peril.

(e) At fault.

(f) Made amends.

(g) Out of keeping.

(h) A good turn.

9. Re-write the following in the indirect form :—

So he enquired of the sailors, "Pray, tell me why there is so much mourning on board your ship?" They answered, "We are carrying slaves whom we captured in different countries; and those who are chained in the ship and will be sold as slaves are weeping."

10. Write a letter, in due form, of 10 or 12 lines to your teacher to say how you mean to spend the approaching summer vacation.

## ENGLISH.—THIRD PAPER.

## URDU TRANSLATION.

DR. G. THIBAUT, PH.D.

W. C. HORST, ESQ.

J. W. BACON, ESQ., M.A.

... } *Examiners.*

ایک درویش ملک تاتار میں سفر کرتا ہوا شہر بلخ میں  
جا پہونچا اور غلطی سے محل شاہی میں گھس گیا اور اوسکو  
سرای سہجھا - تھوڑی دیر تک اپنے چاروں طرف دیکھ کر ایک



بڑے دالان میں چلا گیا۔ یہاں اپنا توشہ دان رکھ دیا اور اپنا  
 بسترا آرام کرنے کے لئے بچھایا۔ اس حالت میں بہت دیر نہیں  
 ہوئی کہ پہرے داران نے اسے دیکھ لیا اور پوچھا تمہارے  
 یہاں آئیکا کیا کام ہے۔ درویش نے کہا کہ میرا ارادہ ہے کہ  
 اس سرای میں آج رات بسر کروں۔ پہرے داروں نے غصہ ہو کر  
 کہا کہ تم جس مکان میں دو روئے سرای نہیں ہے بلکہ محل  
 بادشاہی ہے۔ یہہ باتیں دہوہی رہی تھیں کہ بادشاہ بھی  
 اوسے دالان سے ہو کر گذرا اوسکی غلطی پر مسکرا کر پوچھا کہ  
 تمہاری عقل کتنی موٹی ہے کہ تم محل شاہی اور سرای میں  
 تمیز نہیں کر سکتے۔ درویش نے کہا کہ اگر حضور کی اجازت  
 ہو تو میں دو ایک سوال عرض کروں۔ کہ جب یہہ اولاً بڑا  
 تمب پھلے پہل اسہیں کون آکر تھا تھا۔ بادشاہ نے جواب  
 دیا کہ میرے پرکھے۔ درویش نے پوچھا کہ سب سے پچھلا  
 یہاں کون شخص بسا تھا۔ بادشاہ نے جواب دیا کہ میرا باپ  
 ۔ پھر درویش نے کہا کہ اب اسہیں کون رہتا ہے۔ بادشاہ  
 نے جواب دیا کہ میں خود رہتا ہوں۔ تب درویش نے پوچھا  
 کہ حضور کے بعد یہاں کون رہیگا۔ بادشاہ نے جواب دیا کہ  
 میرا بیٹا جو جوان شاہزادہ ہے۔ درویش نے کہا کہ حضور  
 جو مکان اپنے رہنے والوں کو اتنی بار بدلے اور ہمیشہ نئے  
 نئے مہمانوں کو جگہ دیوے وہ سرای ہے نہ کہ محل شاہی»

### جسٹیس

یہہ راج جودہ پور کے پچیم ہے۔ سنہ ۸۱ کی مردم  
 شماری میں آبادی دس لاکھ آٹھ ہزار ایک سو ایک تالیس  
 تھی۔ مالگذاری قریب دو لاکھ کے ہے۔ اسکا رقبہ راجپوتانہ  
 کے اور راجوں کے نسبت چوتھے درجہ میں ہے۔ مگر آبادی  
 میں سب سے کم ہے بحساب اوسط سات آدمی بھی فی میل  
 مروج اسہیں نہیں بستے۔ اس راج میں بیگانہ سے بڑا کر

ریگستان ہے - راستہ میں تین منزل تک بالکل پانی نہیں ملتا - مسافر مشکین بھر کر اپنے ساتھ اونٹوں پر رکھ لیتے ہیں - ہندوستان کو براعظم کا چھوٹا نمونہ مانا جاوے تو جسلہیر کو ملک عرب کا ایک ٹکڑا کہنا پڑیگا - سیکڑوں کوس تک ریگستان ہے - پانی یہاں بہت کم ملتا ہے - تھول جیسے ترپوز یہاں پیدا ہوتے ہیں - اونہیں کے پانی سے لوگوں کا کام چلتا ہے - کوؤں میں دو سو تھائی سو ہاتھ کی گہرائی پر پانی نکلتا ہے سو بھی اکثر کھاری - رتیلے میدانوں کے درمیان میں جہاں اچھی زمین ملی ہی اوسہیں گاؤں بسے ہیں - اونٹ بھیڑ بکری اور دوسرے چوپایوں کے جھنڈ کے جھنڈ لوگ پالتے ہیں - سن بکرماجیت کی ساتویں صدی میں مہاراج دیوراج نے اس راجکی بنیاد ڈالی - سنہ ۱۱۵۶ عیسوی میں شہر جسلہیر بسایا گیا - سنہ ۱۲۲۶ عیسوی میں علاؤالدین خلجی نے جسلہیر پر حملہ کیا تھا مگر اسے ریگستان پا کر چھوڑ دیا - اسی سبب سے موہتوں کے کوت مار سے بھی بچا رہا - یہاں کے لوگ نہایت غریب ہیں - راجہ کے بھائی ہندون میں راج بہت بڑا ہوا ہے اسی سے مالگنداری اتنی تھوڑی ہے - شہر جسلہیر گیارہ ہزار آدمی کی بستی ہے - راجہ یہاں کے مہاراول کہلاتے ہیں \*

### HINDI TRANSLATION.

एक दरवेश तातार देश में भ्रमण करता हुआ बलख नगर में जा पहुंचा और भूल से बादशाह के महल में घुस गया और उसको सराय समझा। थोड़े देर तक अपने चारों तरफ देख कर एक बड़े दालान में चला गया। यहां अपना झोला रख दिया और आराम करने के लिये बिस्तर बिछाया। इस अवस्था में बहुत देर नहीं हुई कि पहर

वालों ने उसे देख लिया और पूछा तुम्हारे यहां आने का क्या काम है। दरवेश ने कहा कि मेरी इच्छा है कि इस सराय में आज रात बिताऊं। पहरेवालों ने बीच से कहा कि तुम जिस सक्कान में ही यह सराय नहीं है बादशाह का महल है। यह बातें हो रही थीं कि बादशाह भी उम्मी दातान से ही कर आ गये और उसके भूज पर मुद्रिका कर पूछा कि तुम्हारी शक्त कितनी मोटी है कि तुम बादशाह के महल और सराय का भेद नहीं पहचानते। दरवेश ने कहा कि यदि आपकी आज्ञा हो तो मैं दी एक पत्र करूँ। कि यह सक्कान जब पहिले बना था तब प्रयत्न कौन लाकर रहा था। बादशाह ने उत्तर दिया कि मेरे पुरो। दरवेश ने पूछा कि सब से पहिला यहां कौन जन्म बना था। बादशाह ने उत्तर दिया कि मेरा पिता। फिर दरवेश ने कहा कि अब इसमें कौन रहता है। बादशाह ने जवाब दिया कि मैं खुद रहता हूँ। तब दरवेश ने पूछा कि आप के पीछे यहां कौन रहेगा। बादशाह ने कहा कि मेरा बेटा जो जवान शाहजादा है। दरवेश ने कहा जो सक्कान अपने टिकने वालों को इतनी बार बदले और नित्य नये रसिहमानों को जगह देते वह सराय है न कि बादशाह का महल ॥

जेमलुन्नीर ॥

यह राज्य घोघपुर के पश्चिम है। सन् ८१ की मुद्रुंग शुनारी में आबादी १००२१४१ थी। मालगुजारी अनुमान दो लाख के लगभग है। विस्तार में यह राजपूताने के और २ राज्यों की अपेक्षा चौथे श्रेणी का है किन्तु आबादी में सब से कम है। वस्ती पूरी नील सुरवा सात आदमी की भी

औसत से नहीं पड़ती। इसमें बीकानेर से बढ़कर भी बलुई मरुभूमि है। रास्ते में तीन मंज़िल तक बिलकुल पानी नहीं मिलता। बटोही मशकें भर कर ज़ंटों पर अपने साथ रख लेते हैं। हिन्दुस्थान को यदि महाद्वीप की छोटी सी नक़ल मानो तो जैसलमीर को अरब देश का एक टुकड़ा कहना पड़ेगा। सैकड़ों कोश तक बलुई मरुभूमि हैं। पानी जहाँ अत्यन्त दुर्लभ है। ढोल ऐसे तरबूज यहाँ पैदा होते हैं। उन्हीं के पानी से यहाँ का काम चलता है। कूओं में दो सौ ढाई सौ हाथ की गहराई पर पानी निकलता है। सो भी बहुधा खारी। बालुए मैदानों के बीच कहीं पर जहाँ अच्छी ज़मीन आ गई है उसमें गांव बसे हैं। जंट मेड़ी बकरी तथा दूसरी चौपायों के झुंड के झुंड लोग पालते हैं। विक्रमादित्य के संवत् के सातवीं शताब्दी में महाराज देवराज ने इस राज्य की बुनियाद डाली। ११५६ ई० में जैसलमीर का नगर बसाया गया। १२२४ में अलाउद्दीन खिलजी ने जैसलमीर का आक्रमण किया। किन्तु इसे मरुभूमि समझ छोड़ दिया। इसी कारण सरहदों के लूटमार से भी बचा रहा। प्रजा यहाँ की अत्यन्त गरीब हैं और राज भाई बन्धुओं में बहुत बटा है इसी से मालगुजारी इतनी थोड़ी है। जैसलमीर का शहर ११००० आदमी की बस्ती है। राजा यहाँ के महारावल कहलाते हैं ॥

## MATHEMATICS.

### ARITHMETIC AND ALGEBRA.

BABU MOHINDRA NATH DUTT, M.A. }  
 PANDIT SUDHAKAR DUBE, ... } *Examiners.*

1. (a) Explain what is meant by the following terms:—

*Prime factors ; common measure ; common multiple ; lowest common multiple.*

(b) A courtyard, 432 feet long 401 feet wide, is to be paved with square stones all of one size. What is the largest size which can be used ?

2. (a) Simplify  $\frac{575}{425}$  of  $\frac{1}{4} \div \frac{8}{7} + \frac{4}{9} \times \frac{3}{5} \times \frac{1}{2}$ .

(b) Find the square root of 31415926 to four places of decimals.

3. The *difference* between the interest for 4 months, and the Discount, on a certain sum due in 4 months at 4 per cent., is one rupee. What is the sum ?

4. A merchant sells silk of two qualities which cost him Rs. 5 5*as.* 4*p.* and Rs. 4 4*as.* 4*p.* per yard, respectively. The selling price of the latter is two-thirds that of the former, but the quantity sold is double and the merchant gains 25 per cent. on the whole. Calculate the selling price per yard of each.

5. A policeman goes after a thief who has 100 yards' start; if the policeman run a mile in six minutes, and the thief a mile in ten minutes, how far will the thief have gone before he is overtaken ?

6. Resolve into factors :—

(i)  $x^3 + 4x^2$  (ii)  $x^3 - x^2 - x - 1$ , (iii)  $a^2 b^2 - a^2 - b^2 + 1$ .

7. Simplify  $\frac{x}{(x-y)(x-z)} + \frac{y}{(y-x)(y-z)} +$

$$\frac{z}{(z-x)(z-y)}.$$

8. Solve

(i)  $\frac{1}{\sqrt{x-1}} + \frac{1}{\sqrt{x-2}} = \frac{3}{\sqrt{x-3}}$

(ii)  $\begin{cases} (a+b)x + (a-b)y = 2ac, \\ (b+c)x + (b-c)y = 2bc, \end{cases}$

9. If  $a : b = b : c$  shew that  $a^2 + ab + b^2 : b^2 + bc + c^2 = a : c$ .

10. Two sums of money are together equal to £ 54 12*s.* and there are as many pounds in the one as shillings in the other. What are the sums ?

## GEOMETRY AND MENSURATION.

BABU SARAT CHANDRA MUKERJEE, M. A. } *Examiners.*  
 BABU UMESH CHANDRA GHOSH, M. A. }

1. A triangle ABC and a parallelogram APQC, are on the same base AC and on the same side of it, the perpendicular from B and P on AC are given equal, shew—

- (i) that BP is parallel to AC.
- (ii) that BP and PQ are in one straight line, and
- (iii) that the parallelogram is double of the triangle.

2. Prove the sixth proposition of the Second Book and thence deduce that the rectangle contained by any two unequal straight lines is equal to the difference of the squares on half their sum and on half their difference.

3. (a) Shew that two concentric circles cannot meet.

(b) If a straight line touch a circle, and from the point of contact a straight line be drawn cutting the circle, the angles which this line makes with the line touching the circle shall be equal to the angles which are in the alternate segment of the circle.

4. Describe a regular pentagon about a given circle.

5. Give in each case the construction only of the particular line (straight or curved) in which the following points must lie :—

(a) The vertices of all right-angled triangles standing upon the same given hypotenuse DE.

(b) The vertices of all isosceles triangle on a given base FG.

(c) The centres of all circles touching the same two given straight lines KL and KM.

6. If a quadrilateral be bisected by each of its diagonals, shew that it is a parallelogram.

7. The difference between the areas of two squares inscribed in and circumscribed about a circle is 338 sq. ft. ; find the radius of the circle.

8. The opposite sides of a quadrilateral are parallel and the distance between them is 7 chains 50 links ; if the area is 6.75 acres and the length of one of the parallel sides is 10 chains 30 links, find the length of the other.

9. Plan a field from the following notes and find its area in acres, roods, and poles :—

	Links	
	A	
	500	
	380	25 G.
	C	
Turn	to tho	right
	C	
	500	
F 175	220	
	B	
Turn	to the	right
	B	
	800	
E 100	650	
D 200.	400	
	A	

## ARABIC.—FIRST PAPER.

MAULVIE MOHAMMED ABDUL JALIL, *Examiner.*

1. Translate the following into English :—

بني الهامون قصرًا عظيمًا وصوت فيها مبالغ كثيرة وجاء  
البهلول يومًا لزيارة الهامون وكان جالسًا في قصره فقال  
الهامون يا بهلول اكتب شيئًا على هذا القصر فاخذ البهلول  
فحما وكتب رفعت الطين ووضعت الدين رفعت العيص و  
وضعت النقص ان كان من مالك فقد اسرفت والله لا يحب الميسرفين  
و ان كان من مال غيرك فقد ظلمت والله لا يحب الظالمين \*

2. Re-write the above extract with vowel points.

3. Translate literally into English, and explain the grammatical points contained therein :—

جاء نبحوي علي باب نبحوي فدخل بابه فقال من انت فقال  
الزائر احمد فاجاب صاحب الدار انصرت فقال احمد لا ينصرت  
فاجاب اذا كان نكرة ينصرت \*

4. Explain the following in English, and name the book from which it is a quotation :—

البخل عيب فاضح \* الجود ستر صالح  
العقل قاض عادل \* العجب داء قاتل  
العهر ضيف راحل \* البسال ظل زائل  
الصبر في الشدائد \* من شيم الا ماجد

5. Name the author of the following verses, and translate them into English :—

اذا عاش امرؤ ستين حولًا \* فنصب العهر تهقه الليالي  
ونصب النصف يهضي ليس يدري \* لثقلته يهينسا عن شهال  
و ثلث النصف آمال و حرص \* وشغل باله كاسب والعيال  
وباتي العهر اسقام وشيب \* وهم بار تعال و انتقال  
فحب الهرة طول العهر جهل \* وقسمته علي هذا الهثال

6. How do nouns of the form of *انعل*, when expressing the comparative and superlative degrees, form their feminines? Give examples.

## ARABIC.—SECOND PAPER.

MAULVIE SYED RAHIMUDDIN, *Examiner*.

*N.B.*—Give vowel marks to every Arabic words you make use of in your answers.

1. Translate the following into English:—

الناسك من سلم الناس من يده ولسانه - عز الدنيا بالمال  
وعز الآخرة بصالح الأعمال - لا غربة للمفاضل ولا وطن  
للجاهل - عش ما شئت فانك ميت - الخمر جهاج الاثم - عليكم  
انفسكم لا يضركم من ضل اذا اهتديتم - العاقل يتعظ بالادب  
والبهايم لا تتعظ الا بالضرب - ما شر بعده الجنة بشروا لا خير  
بعده النار بخير - من ابصر عيب نفسه اشتغل عن عيب غيره -  
والحرص مفتاح التعب و مطية النصب - من حفر بئرا لآخيه  
فقد وقع فيه - اذا تم العقل يقص الكلام - من هتك حجاب  
آخيه هتك عورات بنييه - اقل الناس فيمة اقلهم عليها - من  
اعجب براء ضل و من استغنى بعقله زل و من تكبر على الناس  
زل - من لم يتعلم في صغره لم يتقدم في كبره \*

2. Mention *حروف الايجاب* and their different usages with examples.

3. Translate into Arabic:—

God! there is no God but He. Probably, there are 13 men and 14 women in the house. Had he learnt the lesson, he should have been given 700 Dinars 24 Dirhams and 5,000 Sa' of wheat. What you call me for? I did not send for you. The house has been built. A certain man came four days ago.

4. Define *استثنا* with its two kinds, illustrating your answer with examples.



5. Translate into English :—

الهرء بفضيلته - لا بفضيلته - كل يعصده مازرع ويجزاي  
 بها منفع - من اطاع هواه باع دينه بدينه -- اذا ذهب العبياء  
 حل البلاء -- اذا اصطلحت الهرورت فاستتره و اذا اصططح  
 اليك فانشورة -- من طاب اصله زكي قرعه -- من قال ما لا  
 ينبغي سمح ما لا يشتهي -- من ازم الرقاد عدم الهواد --  
 من دام كسله خاب امله - من نظر في العواقب سلم من  
 الذوائب - من امارت الخذلان معاداة الاخوان - من ركب العجل  
 ادركه الزلل من فعل ماشاء لقي ماشاء - ا انتم تزر عونہ ام  
 تفتن الزار عون

6. How do the *مُتَنِيْن* divide and subdivide Arabic words? Mention the various divisions and subdivisions with examples.

7. Translate into Arabic :—

As soon as you came he went away. They came to-day at 7 o'clock evening. He went away, yesterday at 10-20 A.M. No sooner did you come than he fled away fearing slaughter. The sooner the better. The war went on for years. The moon rose full. Amr and I, while going on, struck the boy before the teacher on Friday, a severe blow by way of correcting him. Alas! we lost the noblest of mankind in knowledge and in wisdom. Here came the man the most learned. You are more pious than I. How handsome he is! What a fine horseman you are! How many men are there in the house? He said so and so. Paradise is at the feet of mothers.

8. Mention, define, and illustrate the various kind of *منعول*, and also give an example containing all of them in one and the same sentence.

#### PERSIAN.—FIRST PAPER.

MAULVIE SYED KALAN

„ SYED ABDULLAH

} Examiners.

1. Translate the following passages into English :—

توانگر زاده را دیدم برگوز پدر نشسته بود و بادرویش (a)  
 بچه به مناظره در پیوسته که گور پدرم سنگین است و کتابه  
 رنگین - و فرش رخام - و خشت فیروزه بکار بوده و بگور پدرت  
 چه ماند - خشته دو فراهم آورده و مشتے خاک بر آن پاشیده -  
 درویش پسر که بشنید گفت تا پدرت از زیر آن سنگ گران  
 بر خود بجنبید پدرم به بهشت رسیده باشد \*

سگے را گفتند سبب چیست که در هر خانه که باشی (b)  
 گدا گرد آن خانه نتواند گذشت - گفت من از حرص و طمع  
 دورم و به بے طبعی و قناعت مشهور - از خوانه به تنگ نانه  
 قانعم - و از بریانی به خشک استخوانه خرسند - اما گدا سخنة  
 حرص و طمع او مدعی جوع و مکر شبع - نان یک هفته اش  
 در انبان و زبانش در طلب نان یکشنبه چندان \*

(2) Explain اضافت in the following phrases:—

توانگر زاده - گور پدر - درویش بچه - فرش رخام - سخنة  
 حرص - نان یک هفته -

3. Explain, in your own Persian, the sense of the following sentences:—

عامل بودن بر عقائد و مستقل ماندن در عین شدائد و  
 مقصر نبودن در امور دنیوی از تدبیر - دیر پائی خاندان از  
 ترحم نبودن بر یتیمان - و محتاج نشدن خود از کامروائی  
 محتاجان - انصرام امور ملکی بصلاح و صوابدید وزرا - مظفر  
 و منصور بودن باستبدان همت فقراء - تندرست ماندن از  
 فیت ازالہ درد دردمندان امید رحمت داشتن از جناب حق  
 بعفو جرائم مجرمان \*

4. (a) Name the book from which the above sentences are taken. Who quoted them?

(b) What are the roots of انصرام and منصور? Give their literal meanings.

5. (a) Write out the meanings of the following words in English ; and mention their singular or plural :—

حصاء - ورید - ذمائم - زمام - جیران - زندیق - زوائج  
حقار - افعی - حوصلہ - و دائع - طریق - وصایا - اسلاف -  
زمرہ - بنادر -

(b) Explain the formations of the following words :—

گرداب - برملا - مخیلان - خانقہ - بربط - دشنام -

6. Translate the following couplets into English :—

(a) اگر پائی در دامن آری چو کوہ \* سرت ز آسمان بگزر دهم شکوہ (a)  
زبان در کشای مرد بسیار دان \* کہ فردا قلم نیست بر بے زبان  
صدت وار گوهر شناسان راز \* دهن جز بہ لولو نکردند باز  
قراوان سخن باشد آگندہ گوش \* نصیحت نہ گیرد مگردر خموش  
بدرسم دان خواهان داد برداشت \* ز دل نالہ ز جان فریاد برداشت (b)  
ز بس بر آسمان میشد ز فرسوی \* تغییر چا و شان طر قوا گوی  
ز بس بر گوشہا میزد ز غرجای \* مہیسل مرکبان باد پیہ پای  
کس از غوغا بحال اونیتاد \* بحالی شد کہ آنرا کس مبینان

(c) بہ شہر خویش بسے بیقدر بود مردم  
بہ کان خویش بسے بے بہا بود گوہر  
درخت اگر متحرک شدے زجای بجای  
نہ جور ارے کشیدے ونے جفای تبر  
اگرچہ دوست عزیزاست راز دل مکشای  
کہ دوست نیز بگوید بہ دوستان دیگر  
بکوش تا بتوانی دلی بدست آری  
کہ در جہان بہ ازین نیست نہیچ جان پدر

7. Explain the meanings of the following couplets in simple Persian :—

ہان مشو نومید چون واقف نہ ز اسرا رغیب  
باشد اندر پردہ بازیہاے پنہان غم مخور

هر که سرگردان به عالم گشت و غمخوارے نیافت  
 آخر الامر او به غمخوارے رسد هان غم مخور  
 در بیابان گریه شوق کعبه خواهی زد قدم  
 سوزن نشها گر کند خار مغیلاں غم مخور  
 حال ما و فرقت جانان و ابرام رقیب  
 جمله میدانند خدائے حال گردان غم مخور  
 اے دل از سیل فنا بنیاد هستی بر کند  
 چون ترا نوح است کشتی بمان ز طوفان غم مخور

8. What are the original meanings of the words کعبه-بیابان and رقیب ? Account for their *secondary* meanings.

9. Translate the following *quatrain* into English ; and write down a short biography of its author in Persian.

بیگانه اگر وفا کند خویش من است \*

ور خویش خطا کند بداندیش من است

گر زهر موافقت کند تریاک است \*

ور نوش مخالفت کند ندیش من است

10. Define ترابع. Name its divisions and sub-divisions with examples.

#### PERSIAN.—SECOND PAPER.

MAULVIE SYED AMJAD ALI, M.A.

” ”

ALI KHAN,

} ... *Examiners.*

1. Translate into English :—

(a) یکی صعو را بگرفت گفت چه خواهی از من گفت  
 آفکه ترا بکشم و بخورم گفت از خوردن من چیزی نیاید  
 لیکن سه سخن ترا بیاموزم که آن ترا بهتر از خوردن من بود  
 اما یکی در دست تو بگویم و دیگر وقتی بگویم که مرا رها  
 کنی تا بر درخت نشینم و سوم انگاه گویم که از درخت بر  
 سر کوه بپریم گفت اول بگو گفت هرچه از دست تو رفت بر

آن حسرت مخور رها کرد تا بپزید بر درخت نشست گفت  
دوم بگو گفت سخن محال باور مکن و بپزید و بر سر کوه  
نشست گفت ای بدبخت اگر مرا بکشتی توانگر شدی که در  
شکم من دو مروارید است و هر یکی بیست مثقال است و هرگز  
درویش نشدی آن مرد انگشت در دندان گرفت و گفت درینجا  
اینست افسوس گفت اکنون سرم بگو گفت تو آن دو را فراموش  
کردی سوم چه کنی ترا گفتم بر رفته حسرت مخور و محال  
باور مکن من در دست تو با دهنه گوشت و پوست و پروبال  
ده مثقال نبودم در درون من مروارید بیست مثقال چون  
بود این بگفت و به پزید \*

(۱) پادشاهی بشکار میرفت آزاد را دید سگی به پهلوی  
بسته و خودش خرم نشسته وزیر را گفت بیا که دای بدیوانه  
خوش کنیم گفت نه که بے ادبی کند گفت بای نیست رفت و  
گفت ای آزاد سگ خوبتر است یا خودت گفت قربان شاه  
سگ زنه از فرمان این گدا سر نقابد پس شاه و گدا اگر خدا  
را فرمان بریم از سگ بهتریم ورنه سگ از هر دو بهتر \*

(۲) آورده اند که غلامی از شهر روم گریختن بود و بجزم و طن  
خود صحرا نوردی از آغاز کرده روزه بصحرای رسید و  
از غار صدای شیر بگوشش آمد ترسید اما شیر پیشش  
بیامد و پنجه خود را بر زانویش نهاد دید که از جراحت خار  
آما سیده است غلام بفرمی و سرعت تمام خار را از پنجه  
اش بر آورد شیر چون ازین درد نجات یافت دست و پای غلام  
را لیسیدن گرفت و بدین احسان او را صاحب خود می پنداشت  
در این اثنا مالکش به جستجوی بسیار خود را در آنجا رسانید  
و غلام را گرفته بروم برد و بجزم گریختن حکم نمود که در قفس  
درندگانش قید کند و شیریرا که هم در آن مدت گرفتار آمده  
بود سه روز گرسنه داشته بیاوردند و بران غلام رها کردند چون

نظر شیر برین غلام افتاد دست و پایش لیسدن گرفت و چو  
سگ آموخته خندید پس و پیش دویدن میگویند که این از همان  
شیر زخم خورده و از دست این غلام جان بسلامت برده بود  
الحاصل غلام و شیر هر دو را رها کردند و این حیوان شکر گزار  
در خدمت غلام ماندند غلام وفادار تا حیات خود بود \*

## 2. Translate into Persian :—

Cræsus was proud of his wealth and loved to display it ; but he was at the same time a gentle and estimable prince, fond of learning. It is said that Æsop, the clever deformed slave, composed for his benefit many of the fables which have since almost passed into proverbs. Another visitor at his court was Solon, one of the seven wise men of Greece, to whom Cræsus showed the whole bright array of his treasures, and asked at the end, "Whom do you think the happiest of men ?"

Solon answered by naming a Greek, who had spent a quiet, useful, and peaceable life, and died at last while fighting in the cause of his country.

Cræsus who had expected to hear himself named, desired to hear whom Solon deemed the next happiest.

He mentioned two youths who had shown such pious affection to their mother, that she prayed that they might receive the best reward that Heaven could bestow upon man. While she was yet praying, they fell asleep, and their sleep was a peaceful death.

"These" said Solon, "were the next happiest."

"Do you not, then, think me a happy man?" said Cræsus, vexed at seeing how little account the wise man seemed to take of his wealth.

"Alas !" said Solon, "who can be said to have been happy while he still lives ?"

Two years after, Cræsus was obliged to own the truth of this reply, when he lost his eldest son by an accident. Soon after he rashly entered upon the war with the Medes and Persians, who totally defeated him. Cyrus made Cræsus prisoner and ordered him to be burnt to death. The pile of wood was raised, and Cræsus was chained to it, when at that very moment calling to mind the saying which had warned him not to trust in present prosperity, he broke out into an exclamation of "O Solon, Solon, Solon !"

Hearing the cry, Cyrus asked its meaning, and desired that the captive should be led to him to explain it. He was so much struck by Solon's lesson, that he not only spared the life of Cræsus, but made him his favoured friend and counsellor ever after, seeing in his misfortunes a warning against putting too much confidence in the power and greatness to which he was at present raised.

## SANSKRIT.—FIRST PAPER.

PANDIT RAMSASTRI TAILANG, Examiner.

1. Translate the following into English :—

अयं निजः परो वेति गणना लघुचेतसाम् ।

उदारचरितानां तु वसुधैव कुटुम्बकम् ॥

यथा ह्येकेन पादेन न रथस्य गतिर्भवेत् ।

विना पुरुषकारेण तथा देवं न सिध्यति ॥

अथैवं जलपतां तेषां चित्राङ्गदो नाम हरिगो लुब्धक-

त्रासितस्तस्मिन्नेव सरसि प्रविष्टः । अथायान्तं तं ससम्भ्रम-

मवलोक्य लघुपतनको वृक्षमारूढः । लघुपतनको मृगं सम्यक्

परिज्ञाय सन्धरकमुवाच । एह्येहि सखे सन्धरक तृपार्तोऽयं

मृगोऽत्र समायातस्तस्य शब्दोऽयं न मानुषसंभव इति ।

(a) Parse the words कुटुम्बकम्, संस्रूयन्, वृक्षम्, नन्दनम्, मृगम् and नाम.

(b) Give the roots of आरूढः, परिज्ञाय, उवाच, and इति; and conjugate them in the third preterite (लृट्).

(c) Decline लघुचेतस्, जल्पत्, and तद् in the nominative singular and plural numbers in all genders.

(d) Expound, and name, the samasas in the under-lined words.

(e) Analyze the sandhi in परोवेति, गतिर्भवेत्, अर्थवत्, मृगार्थः and एह्येहि.

II. Explain in Sanskrit :—

1. मनसा चिन्तितं कार्यं वचसा न प्रकाशयेत् ।

अन्यलक्षितकार्यस्य यतः सिद्धिर्न जायते ॥

2. सेवितव्यो महावृक्षः फलच्छायासमन्वितः ।

यदि दैवात् फलं नास्ति छाया केन निशार्थते ॥

3. चलत्येकेन पादेन तिष्ठत्येकेन बुद्धिमान् ।  
नासमीदृय परं स्यान् पूर्वसायतनं त्यजेत् ॥
4. आपदर्ये धनं रक्षेद्द्वारान् रक्षेद्दुनैरपि ।  
आत्मानं सततं रक्षेद्द्वारैरपि धनैरपि ॥

- (a) Parse the underlined words.
- (b) Decline दार and आत्मन् in all cases.
- (c) Write out the first line of extracts 1 and 3 in the above, using the passive construction.
- (d) Conjugate the root अस् in the first and third preterites (जङ् and लृङ्).

III. Turn into simple prose :—

- (a) कारुण्यं संविभागश्च यस्य भृत्येषु सर्वदा ।  
संभवेत्स महीपालकौलोक्यस्यापि रक्षणे ॥
- (b) अंजनस्य क्षयं दृष्ट्वा वल्मीकस्य च संचयम् ।  
अवन्ध्यं दिवसं कुर्याद्दानाध्ययनकर्मसु ॥
- (c) अल्पानामपि वस्तूनां संहतिः कार्यसाधिका ।  
तृणैर्गुणत्वमापन्नैर्बध्यन्ते सत्तदन्तिनः ॥
- (d) एकेनापि सुवृक्षेण पुष्पितेन सुगन्धिना ।  
वासितं तद्गन्धं सर्वं सुपुत्रेण कुलं यथा ॥

- (1) Translate the extract (c) into English.
- (2) Explain the formation of the words दृष्ट्वा and दन्तिनः.
- (3) Expound, and name, the samasa in दानाध्ययनकर्मसु.

IV. Correct the following :—

बहुभिर्मुखसंघातैरन्योन्यपशुवृत्तिभिः ।  
प्रच्छाद्यन्ते गणान् सर्वे मेघा इव दिवाकरम् ॥

- (a) Write out the purport of the above extract, in English or Hindi.
- (b) After correction change the voice of the above extract.
- (c) Decline सर्व in the dative (चतुर्थी) genitive (षष्ठी), and locative (सप्तमी) cases in the masculine gender ( पुल्लिङ्ग ).



V. Write down the meanings of the following words:—

यूयम्, वैद्यस्य, अनागतविधाता, प्रत्युत्पन्नमतिः, अष्टा-  
पदम्, लघुपस्ताः, सन्नः, व्यवसायः, श्रोत्रियः, and गरीयः ।

### SANSKRIT.—SECOND PAPER.

PANDIT DEVENDRA NATH CHAKRAVARTI, M.A., *Examiner.*

1. Translate into Sanskrit:—

(a) Nothing useful can be done without a good will towards it.

(b) The main object of our lives should be to learn our duty to God and man, how to govern ourselves, and be useful to others.

(c) If a king were not prompt in inflicting punishment on the wicked, the stronger would prey upon the weaker.

(d) In this country the leaves of trees wither in summer and sprout again in the rains. In cold countries they fall off in winter.

2. Translate into English:—

(a) षडेव तु गुणाः पुंसा न हातव्याः कदाचन ।

सत्यं दानमनालस्यमनमृषा क्षमा धृतिः ॥

(b) सन्नियच्छति यो वेगमुत्थितं क्रोधहर्षयोः ।

स श्रियो भाजनं योग्यं यस्त्वापत्सु न मुह्यति ॥

(c) धनानि जीवितञ्चैव परार्थं प्राप्य उत्सृजेत् ।

सन्निहिते वरं त्यागो विनाशे नियते मतिः ॥

(d) क्षमातुल्यं तपो नास्ति न सन्तोषात्परं सुखं ।

न च तृष्णापरो व्याधिर्न च धर्मो दयापरः ॥

(e) आसनात् शयनाद्द्वानात् सम्भाषात् सहभोजनात् ।

संक्रामन्ति हि पापानि तैलविन्दुरिवाम्भमि ॥

(f) पुरा हस्तिनापुरे नगरे महावीरनामा नृपतिर्यभूत् ।

स त्यागी, मेधावी, रूपवान्, सरलश्च । कदाचित्  
रात्रौ स निजनगरस्य मध्ये परिभ्रमति स्म । पथि  
एकस्मिन् गृहे गाथामेतां शुश्राव । तद्वयथा—  
हंसाः सर्वत्रसिताः शिखण्डिनः सदा चित्रताङ्गुहाः ।  
सर्वत्र जन्ममरणे सर्वत्र विभोगिनो भोगाः ॥

इमां गाथामाकर्ण्य राजा चिन्तयामास त्रयाणां पादा-  
नां अर्थः प्रत्यक्षं दृश्यते परं एतत् वचनामात्रं न पुनः  
प्रत्यक्षं यत् भोगिनः सर्वत्र भोगा भवन्ति । एतत्  
अलीकं । अहमत्र भोगवन् वर्त्ते, यदि एवंविधा  
भोगा मम विदेशेऽपि भवन्ति तदा एतत् सत्यं वचः ।  
इति चिन्तयित्वा नगरप्रान्तं गतः । तत्र राज्ञा  
चिन्तितं, रूपवान् पुरुषः सर्वत्र गौरवं लभते । ततः  
कारणात् विनष्टदेहो बभूव । किं बहुना अतीवकु-  
रूपः विलोकयितुमशक्यश्च जातः तादृशः स राजा  
तत्रस्थे एकस्मिन् प्रासादे उपविष्टः नगररमणीयतां  
विलोकयति स्म ।

- (g) पापं हन्ति ज्ञानवृद्धिं विधत्ते  
धर्मं दत्ते काममर्थञ्च सूते ।  
मुक्तिं दत्ते सर्वदोषास्यमाना-  
पुंसां श्रद्धाशालिनी विष्णुभक्तिः ॥

## HISTORY.

REV. L. F. PHILLIPS, M.A.

B. D. GORDON, ESQ.

... } Examiners.  
... }

1. Give accounts of the reigns of Alfred the great and Anne.

2. Narrate briefly the doings of English Sailors in the reign of Queen Elizabeth.

3. Point out the chief steps from first to last by which the English Parliament advanced to be a representative body.
4. State the causes which led to the Crimean War and its results.
5. Describe the reigns of Asoka and Aurangzeb.
6. How often did Mahmud of Ghazni invade India? Give his chief exploits.
7. Give an account of the Portuguese Dominions in India.
8. Sketch the rise and fall of the Mahratta power.
9. Between whom were these battles fought and with what results?  
Evesham, Bannockburn, Towton, Naseby, Quiberon Bay, Victoria, Thaneswar, Paupat (3) Buxar.
10. What do you know of the following :—  
Stonehenge, Peter the Hermit, Star Chamber, Utopia, South Sea Bubble, Arkwright, Jai Pal, Permanent Land Settlement, Barron, Ochterlony, Tania, Cavignari.

## GEOGRAPHY.

BABU ABHAYA CHARAN SANYAL, M. A.      .. }  
 BABU GYANENDRA NATH CHAKRAVARTI, M. A. } *Examiners.*

1. (a) Name the principal Native States of India with the chief towns of each.
- (b) Name the settlements owned by other European nations besides the British in India.
- (c) Describe the geography of Bengal, noting the following particulars :—its natural divisions, rivers, chief towns, agricultural, and mining products.
2. (a) Where are the following straits :—  
Torres, Dardanelles, Malacca, Florida, The Sound, Balc, and Vancouver?
- (b) Give the position of the following capes :—  
Matapan, Byron, Romania, Finisterre, Blanco, Land's End, Horn San Roque, and Babr.
3. Draw an outline map of the continent of America, and mark portions of the following on it :—  
(a) The countries which border on the Pacific.
- (b) The course of the following rivers :—the Amazon, the St. Lawrence, and the Mississippi.
4. Name :—  
(a) The rivers which fall into the sea of Aral.
- (b) The mountain which separates France from Spain.
- (c) A peninsula of Asia projecting Westward.
- (d) The highest mountain in Britain.
- (e) The Portuguese settlements in Africa.
- (f) The British settlements in the West India Islands.
- (g) The capital of Chili.
- (h) The natives of New Guinea.
5. What and where are the following :—  
Shillong, Sufed Koh, Shanghai, Perim, Leeds Belgrade, Canary, Tehuantepec, Titicaca, and Hawaii?

6. Explain with the help of a diagram why the torrid zone is hotter than the frigid zone.

7. Enumerate the different causes which promote the rapidity of evaporation. Why does the outside of a glass, containing water with ice in it, become covered with drops of water?

8. From what various sources do large rivers rise? Describe the cause of the annual flooding of the Mahanadi and other rivers of the Indian Peninsula. Explain how lakes regulate the flow of rivers issuing from them.

9. Write short notes on the following :—

The Gulf Stream, the height of the snow line on the Himalayas, spring and neap tides, and the season.

## GEOMETRICAL DRAWING.

G. T. SPARKE, *Examiner.*

1. Show on one figure the  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$  of a line AB.
2. Draw an isosceles triangle with base 3 inches and vertical angle  $30^\circ$ .
3. Circumscribe an octagon about a square, with  $\frac{1}{2}$  inch side.
4. A circle is  $\frac{1}{2}$  inches in diameter : find the centre, and draw a tangent to the circle from a point 1 inch outside.
5. A drawing has no scale on it, but it is found that a measurement of 24 feet is represented by 3 inches : make a diagonal scale for the drawing to read to inches.
6. About a circle  $\frac{3}{4}$  inch radius describe 6 circles, each touching two others and the given circle.

## ELEMENTARY PHYSICS AND CHEMISTRY.

BABU GYANENDRA NATH CHAKRAVARTI, M. A., *Examiner.*

1. Explain clearly why bodies lose in weight when immersed in liquids. A body loses 8 ounces in weight when immersed in water ; what weight will it lose when immersed in mercury which liquid is about 13 times as heavy as water.

2. Describe the syphon and explain the principle on which it works. Why does it not work unless it is previously filled with water? In immersing the shorter end of the syphon in water a small bubble of air has been allowed to get into it. Describe the affect of this on the action of the syphon.

3. What do you mean by 'heat'? On what effect of heat does the use of thermometers depend? Describe the process of making a mercurial thermometer.

4. Define 'Evaporation.' Why does water usually get cooled by being kept in SURAHIS? Also explain the principle on which the action of RUKHAS depends in producing a sensation of coolness in our bodies.

5. Distinguish clearly between 'conduction, and 'convection' of heat, illustrating your answer by examples. Why do we put on woolen clothing in the cold weather, and why is ice kept wrapped up in woolen blanket?

6. Explain what is meant by 'refraction of light' and describe an experiment to illustrate it.

7. What do you understand by the terms "acid," "alkali," "salt," "crystal" and "metal" as used in Chemistry?

8. Define 'hardness of water.' It is a well-known fact that the temporary hardness of water may be removed by pouring in a little lime-water and then filtering the water. Explain carefully what happens to produce this result.

9. Describe the different forms in which carbon exists in the free state. Describe an experiment to prove that vegetable matter contains carbon.

10. What metal exists in the liquid state at the ordinary temperature? Mention some of its properties and its more important compounds. Also mention some of the uses of mercury that you may be acquainted with.

## BOOK-KEEPING.

B. D. GORDON, ESQ., *Examiner.*

I. Give the name of the *book* in which you would enter each of the following transactions: and *write the entries* exactly as they *should appear* in the books:—

(a) On the 4th December, I sold for ready money cheeses weighing 1 cwt. 2 qrs. 6 lbs. at 14 as. per lb.

(b) On the 7th I bought for ready money 10 dozen plated forks at Rs. 15. 4 as. per dozen.

(c) On the 8th having occasion to pay certain house-keeping expenses, I drew a cheque on the Allahabad Bank for Rs. 100.

(d) On the 10th I gave my acceptance for Rs. 450 at 2 months to James Knox, he having drawn the bill the same day and I having made it payable at the Allahabad Bank.

(e) On the 15th I paid for wages the sum of Rs. 20-8-6.

II. (a) What is a *trial balance*? What does it *prove*? What errors *are not checked* by it?

(b) What is the difference between a *Real* and a *Personal Account*? How are *Real* accounts closed? What is a *Nominal Account*?

(c) What is a *Bill of Exchange*? Name the different kinds and state their use. What is meant by *dishonouring a bill* and what by *retiring a bill*?

(d) Write out a specimen form of an accepted draft for Rs. 1,000 payable at 6 months.

III. From the following statement make out "cows," "sheep" and "trade expenses" accounts; carry to Profit and Loss account balance; and carry to Capital account:—

		Rs.	a.	p.
Jan.,	12th Bought cows	850	0	0
"	17th Travelling expenses	25	6	6
"	25th Bought sheep	415	0	0
Feb.,	1st Wages	22	0	0
"	10th Income tax	7	5	9
"	15th Sold sheep	310	8	0
"	19th Bought cows	225	0	0
"	24th Stamps and Stationery	4	3	6
March,	1st Wages	28	0	0
"	3rd Paid bunniah for grain	99	7	6
"	9th Rent	27	5	0
"	15th Sold cows	573	0	0
"	23rd Bought sheep	87	0	0
April,	1st Wages	24	0	0
"	3rd Travelling expenses	31	12	0
"	Sold sheep	204	0	0
"	Sold cows	409	0	0
"	Value of cows unsold	256	0	0
"	Value of sheep do.	175	0	0

IV.—(1) *Journalise*, (2) *Post*, (3) *Prove*:—

	Rs.
Dec., 1st Cash in hand	70
" " Goods in "	194
" " I owe Mr. Murray	120
" " Mr. Dawson owes me	200
" " Taylor Bros. owe me	350
" " M. Dawson settles his account less 5% discount.	

Dec., 3rd	Sold goods to H. Branson	...	80
" 10th	Bought of Mr. Murray	...	140
" 11th	Paid Mr. Murray	...	240
" "	And he allowed me discount	...	20
" "	Sold goods to Howards & Co.	...	130
" 25th	Monthly cash rates	...	930
" 31st	Trade expenses	...	20
" "	Personal	...	50
" "	Value of stock	...	1,240

## POLITICAL ECONOMY.

C. H. LINTON, Esq., M.A., *Examiner.*

1. Show how the science of Political Economy is a practical science; that is, a science which treats of questions that belong to man's every day business life.

2. What is the real nature of money? What do you mean when we speak of the price of money? When people were unacquainted with the science of Political Economy what mistake did they make in regards to money? What is the name by which the error is generally known?

3. What is wealth; and what qualities must it have? What is capital? It is said that all capital is wealth, could we say that all wealth is capital? If not, why not?

4. State Ricardo's theory of rent? Give an illustration of the manner in which the margin of cultivation varies with the price of agricultural land. Does rent affect the price of agricultural produce? Give your reason for your answer.

5. What is meant by the phrase 'division of labour'? What are the advantages that result from a 'division of labour'? What are wages? Supposing the population of a country continued to increase, while its capital remained the same, what effect would this have on wages?

6. What do you understand by trade? Unions; Strikes; Lock-outs; Co-operative Societies? It is said that a strike means a loss to workmen and employers; could you explain in what way?

7. What is credit? If my credit is good, may I not say that my capital is increased to the extent of my credit?

8. What is taxation? What principles should be observed in enacting taxation? Why should taxes not be levied on raw material?

## ENTRANCE AND SCHOOL FINAL-EXAMINATIONS, 1896.

## ENGLISH.—FIRST PAPER.

REVD. G. H. WESTCOTT, M.A., ...	} <i>Examiners.</i>
J. W. BACON, ESQ., M.A., ...	
F. G. HOUSDEN, ESQ., M.A., ...	

1. Give in your own words, the meaning of the words and phrases printed in bold type:—

(a) Every one beheld the adventures as brave, innocent men going to a dreadful execution, as rushing upon certain death; and the vast multitude caught the fire of devotion, and joined aloud in the prayers for success. The relations, friends, and acquaintances of the voyagers wept; all were affected; the sigh was general. Gama himself shed some manly tears on parting with his friends; but he hurried over the tender scene and hastened aboard with all the alacrity of hope. Immediately he gave his sails to the wind; and so much affected were the many thousands who beheld his departure, that they remained *immoveable* on the shore till the fleet under full sail vanished from their sight.

*To what occasion does the above refer? What were the dangers that called forth so much emotion? To what extent were the fears of the people realised? Classify the genitive cases that occur in this extract. Parse immoveable.*

(b) As these ~~tracts~~ <sup>tracts</sup> (at least his portion of them) were all on one side, he entertained no doubt of their infallibility, and, being noisy and disputatious, was sure to silence his opponents; and he became, in consequence of it, intolerable arrogant and *conceited*. He was not, however, indebted solely to his knowledge of the subject for his triumph; he was possessed of "Fenning's Dictionary," and he made a most singular use of it. His custom was to fix on any word in common use, and then to get by heart the synonym or periphrasis by which it was explained in the book; this he constantly substituted for the simple term, and as his opponents were commonly ignorant of his meaning, his victory was complete.



*What man is thus described and by whom? What distinction do you draw between arrogance and conceit? Taking triumph and dictionary as simple terms substitute for each a synonym and periphrasis. In what other sense or senses could on one side be used? Parse conceited.*

- (e) I will not do them wrong; I rather choose  
 To wrong the dead, to wrong myself, and you,  
 Than I will wrong such honourable men.  
 But here's a parchment, with the seal of Cæsar,  
 I found it in his closet, 'tis his will :  
 Let but the commons hear this testament,  
 (Which, pardon me, I do not mean to read,)  
 And they would go and kiss dead Cæsar's wounds,  
 And dip their napkins in his sacred blood ;  
 Yea, beg a hair of him for memery,  
 And, dying mention it within their wills,  
 Bequeathing it, as a rich legacy,  
 Into their issue.

*Into whose mouth are these words put? To whom does 'them' refer? How would he wrong, (1) the dead, (2) himself and (3) the people? Why does the speaker express unwillingness to read the will? In what sense is Cæsar's blood described as sacred? What is the force of but?*

2. Explain fully, but in simple language, the following :—

(a) Every office of natural friendship seemed to promise a lasting harmony.

(b) Spots made famous by the sword and pen  
 Till each one is a shrine.

(c) There is a great difference between what is proper for a letter and what for a history.

(d) Alas for love ! if thou wer't all  
 And nought beyond, O Earth.

(e) Many provinces redeemed their harvest by the payment of an annual ransom.

(f) The only way to answer a fool, is to answer nothing.

(g) Freeze, freeze, thou bitter sky,

Thou dost not bite so nigh  
As benefits forgot.

(h) The power of the prætor was as a reed before the wind.

(i) Error wounded writhes in pain  
And dies among his worshippers.

3. Explain carefully the following phrases :—(a) the narrowing lust of gold, (b) to feel comfort in numbers, (c) to throw oneself on the laws, (d) oak leviathans, (e) to contain in a nutshell, (f) to lisp in numbers, (g) a Peruvian mine, (h) to have interests at stake, (i) to compound a matter.

4. Give the meaning of the words below and write one short sentence to illustrate the use of each :—(1) capricious, (2) frescoes, (3) conventional, (4) veneer, (5) apprentice, (6) subservient and (7) periodically.

5. What is meant by 'antithetical sentences'? In the following passage explain the words and phrases printed in bold type and arrange in pairs the single words placed in antithesis :—

It was the boast of Augustus, that he found Rome of brick, and left it of marble. But much nobler will be our Sovereign's boast, that he found law dear, and left it cheap; found it a sealed book, and left it an open letter; found it the partimony of the rich, and left it the inheritance of the poor; found it the two edged sword of craft and oppression, and left it the staff of honesty and the shield of innocence.

6. Passages from books not prescribed—

Re-write the following passages in your own words, so as to make their full meaning perfectly clear :—

(a) The perfectly educated will be Jack-of-all trades and master of one. "Master of one." Because there is no training in a smattering easily got by an active mind. "Jack of all trades." Because no man can work hard all day; and there is infinite pleasure and profit in picking up everything worth having. "Master of one." Because in the infinity of subjects, the wilderness, the jungle of rival ignorances, no strong, calm, great character can gain its strength excepting by

being pressed to the utmost limit of its power by the fierce demand for perfection that very great subject makes on him who gets far enough to know what trying to be perfect means. Every good runner knows this fierce demand of the last ten or twenty yards of a race. "Jack of all." Because the active brain cannot be on strain always, and yet being active, will be occupied. *E. Thring.*

- (b) How happy is he born and taught  
That serveth not another's will;  
Whose armour is his honest thought  
And simple truth his utmost skill!

\*       \*       \*       \*

Who God doth late and early pray  
More of his grace than gifts to lend;  
And entertains the harmless day  
With a well-chosen book or friend;  
This man is freed from servile bands  
Of hope to rise, or fear to fall;  
Lord of himself though not of lands;  
And having nothing, yet hath all. *Sir H. Wotton.*

### ENGLISH.—SECOND PAPER.

T. R. READ, ESQ., B.A.	...	...	}	<i>Examiners.</i>
F. MANLEY, ESQ., M.A.	...	...		
BABU SARAT CHANDRA MUKERJEE, M.A.	...	...		

- I. What hid'st thou in thy treasure caves and cells,  
Thou hollow-sounding and mysterious main?—  
Pale glistening pearls and rainbow-coloured shells,  
Bright things which gleam unrecked of, and in vain.  
Keep, keep thy riches, melancholy sea!  
We ask not such from thee.

(1) *Parse* the nouns in the above stanza. *Name* the pronouns.

(2) Scan the last two lines.

II. (1) Distinguish between the weak and the strong conjugation of verbs.

(2) To which conjugation does each of the following verbs

belong: *beat, fly, hurt, stop, work*? Conjugate each of these verbs. Write sentences introducing the past participle of each.

III. (1) Add to each of the following words the prefix that reverses the meaning: *sense, truth, honour, patience*. Give another example of a similar use of each of the same prefixes.

(2) Give words, not formed by prefixes, or suffixes, having a contrary meaning to the following: *near, praise, fertile, ancient*.

(3) State what prepositions are used with the following words: *requisite, subversive, inconsistent, amenable*. Write four sentences in illustration.

IV. Correct the following sentences and give your reasons for the changes you make:—

(a) He asked that when he was to come to work.

(b) No sooner I came in I went out again.

(c) We heard of him having met with an accident.

(d) They persisted to do what they knew to be wrong.

V. Give the meanings of—(i) As good as his word. (ii) Penny wise and pound foolish. (iii) A storm in a tea-cup. (iv) The observed of all observers. (v) Wolve in sheep's clothing. (vi) Old heads on young shoulders. (vii) To pay a man back in his own coin. (viii) To turn a person round one's little finger.

VI. Construct three complex sentences containing as their subordinate clause the words *where the accident happened*. In the first sentence the subordinate clause is to be a noun clause, in the second an adjective clause, and in the third an adverbial clause.

VII. Analyse in tabular form the following passage:—

I am always very well pleased with a *country* Sunday, and think, if *keeping* holy the seventh day *were* only a human *institution*, it would be the best method *that* could have been thought of for the polishing and civilising of mankind.

Parse *fully* the italicised words.

VIII. (a) Write in the third person the following speech, taking care to make the meaning plain and commencing with *Tommy said to Harry that*—

I shall not be long without you ; to your example I owe most of the little good that I can boast ; you have taught me how much better it is to be useful than rich or fine—how much more amiable to be good than to be great. Should I be ever tempted to relapse, even for an instant, into any of my former habits, I will return hither for instruction and I hope you will again receive me.

(b) Deduce from the following report the words used by the original speaker.

Did they think that statue of ancient art was but a lifeless marble ? Let them animate it with their breath and instantly it would live and glow. Greek literature, if it served them with nothing else, should excite their curiosity as the picture of a wondrous state of civilisation, which in its peculiar phases, the world could never see again, and yet from which every succeeding state of civilisation had borrowed its liveliest touches.

### ENGLISH.—THIRD PAPER.

C. DODD, Esq. ... } Examiners.  
E. A. MURPHY, Esq., B. A. }

Translate from Urdu into English :—

(a) کشمیر ہندوستان کی مغربی و شمالی سرحد ہے۔ کشمیر کی آب و ہوا اور زمین کی جتنی تعریف کی جاوے سب کم ہے۔ اس کرۂ زمین پر اسکے برابر کوئی ملک نہیں ہے۔ گویا کہ خالق نے سرشت کی عہدگیاں اور گل عجائبات کو یہاں اکٹھا کر کے رکھ دیا ہے۔ یہ ملک چاروں طرف کوہ ہمالیا سے گھرا ہوا ہے۔ اور اسکے بیچ میں ایک سو میل سے زائد لائن میں اور ساتھ میں چوڑان میں ایک مسطح میدان ہے۔ کسی زمانہ میں یہ پورا میدان پانی میں توبا ہوا تھا۔ میوہ جات کے سایہ دار درخت یہاں اس کثرت سے ہیں کہ تمام ملک باغ

معلوم ہوتا ہے۔ جہاں بارہون مہینے بہار کا موسم رہتا ہے کوئی ایسی جگہ نہیں ہے جو سبزی سے خالی ہو۔ اور رنگ برنگ کے پھول اوسمیں نہ پھولے ہوں۔ سیب اور ناشپاتی اس کثرت سے ہوتے ہیں کہ جنگل کا جنگل پڑا ہے۔ برسات یہاں بہت کم ہوتی ہے۔ جازوں میں بڑی سردی ہوتی ہے۔ اور برف خوب پڑتی ہے۔ باقی آٹھ یا نو مہینے بہار رہتی ہے نہ گرمی نہ جازا۔ دریاے جھیلیم پورب سے پچھم کو بہتی ہے۔ نہ بہت چوڑی نہ بہت تنگ گہری بخوبی کہ جس میں ناؤ اچھی طرح چل سکے۔ برسات کے کم ہونے کی وجہ سے یہ دریا گھٹتا پڑتا بھی نہیں ہے نہ اسکا پانی گدلا ہوتا ہے۔ دریا کے دونوں طرف میوہ جات کے سایہ دار درخت بہت خوبصورت معلوم ہوتے ہیں جنکی تالیاں پانی میں ایسی جھکی رہتی ہیں کہ ناؤ پر بیٹھے ہوئے میوے توڑتے کھاتے چلے جائیں گے \*  
 مہارانی لکھشہی بائی کی سوانح عہری کو اچھی طرح (b) سمجھنے کے لئے پہلے جھانسی کے احوال قدیم کو جاننا ضروری ہے۔۔

یہ شہر بوندیلکھنڈ میں واقع ہے۔ پہلے یہ اورچہاکے راجہ بیرسنگم دیو کے ماتحت تھا۔ جب شاہنشاہ دہلی اکبر بادشاہ کے وزیر نامی ابوالفضل کو بیرسنگم نے قتل کر ڈالا تب بادشاہ نے اپنے بیٹے سلیم کو اوسکے مقابلہ پر بھیجا اور بیرسنگم کے میدان جنگ سے بھاگ جانے پر بوندیلکھنڈ کی سلطنت بادشاہان مغلیہ کے ہاتھ لگی۔ جب بہادر شاہ دہلی کے تخت پر بیٹھے تب انہوں نے چھترسال سنگم کو جھانسی کی ریاست جاگیر کے طور پر دیدی۔ راجہ چھترسال کی قسمت کے ستارے کو چمکتا ہوا دیکھ کر بہت سے لوگوں سے ترہا گیا اور صوبدار مالوہ اور نواب الہ آباد نے بار بار انکے راج پر چڑھائی کی۔ چھترسال اسوقت میں بوڑھے اور ضعیف ہونیکے وجہ سے دشمنوں کا مقابلہ کرنے کے لائق نہیں رہے تھے۔ اسلئے

انہوں نے مرہٹوں کے سردار باجی راؤ پیشوا کے ہاں پناہ لی - چھترسال کے حال پر مہربانی کر کے پیشوا نے مسلمانوں کے سرداروں کا مقابلہ کیا اور اونپر فتح پاکر راجہ چھترسال کو انکے راج پر بٹھایا - احسانمندی میں چھترسال نے تین کروڑ کی آمدنی کا ملک باجی راؤ کو دیدیا - اسی ریاست میں بیس لاکھ کی آمدنی کا ملک جھانسی بھی شامل تھا - پیشوا نے جھانسی کی صوبداری پر گھناٹہ ہری نو لکر کو جو ایک نامی مرہٹا سردار تھا مقرر کیا - وہی سردار مہارانی لکشمی بائی کے شوہر کے خاندان کا پہلا آدمی ہے \*

Translate from Hindi into English :—

(a) काश्मीर हिन्दुस्तान के उत्तर पश्चिम की सीमा है । काश्मीर के जल वायु तथा यहां की पृथ्वी की जितनी प्रशंसा की जाय सब कम है । इस भूमण्डल में इनके बराबरी का कोई दूसरा देश नहीं है । मानो विधाता ने सृष्टि की जितनी श्रद्धा भुक्त जालें और सुन्दरता है सब का नमूना यहां इकट्ठा कर रख दिया है । यह देश चारों ओर हिमालय से घिरा है और बीच में इसके १०० मील के ऊपर लम्बाई में और ६० मील चौड़ाई में समथर मैदान है । किसी समय यह सम्पूर्ण मैदान पानी में डूबा हुआ था । छायादार मैदों के पेड़ इस बहुतायत से हैं कि समग्र देश का देश वाग्न जालून होता है । जहां वारहों महीने वसन्त ऋतु निवास करता है । कोई ऐसा स्थान नहीं है जो हरित वृत्ती से खाली हो और रंग वस्त्र के फूल उस में न फूले हों । सेव और नाशपाती इस बहुतायत से होता है कि जंगल का जंगल पड़ा है । वसन्त यहां बहुत कम होती है । जाड़ों में बड़ी संदी होती है और वर्षा सूख पड़ती है ।

बाकी ८ या ९ महीने बसन्त रहता है न गर्मी न जाड़ा । फ़ैलम नदी पूरब से पश्चिम को बहती चली गई है । न बहुत चौड़ी न बहुत सकेती । गहरी अच्छी कि जिस में नाव अच्छी तरह से चल सके । बर्सात यहां कम होने से यह नदी घटती बढ़ती भी नहीं न पानी इसका गंदला होता है । नदी के दोनों ओर छायादार मेवे के पेड़ बड़ी शोभा देते हैं । जिनकी डालियां पानी में ऐसी झुकी रहती हैं कि नाव पर बैठे मेवे तोड़ते खाते चले जाइये ।

(b) सहारानी लक्ष्मी बाई की जीवन घटना को अच्छी तरह से समझने के लिये पहिले झांसी का कुछ पूर्व दृत्तान्त जानना बहुत जरूर है । यह नगर बुन्देलखण्ड के अन्तर्गत है । यह पहिले ओछा के राजा बीरसिंह देव के आधीन था । जब दिल्लीपति अकबर शाह के नामी संत्री अबुलफ़जल को बीरसिंह ने मार डाला तब बादशाह ने अपने लड़के शलीम को युद्ध करने के लिये भेजा और बीरसिंह के मैदान से भागने पर बुन्देलखण्ड राज्य मुगल बादशाहों के हाथ आया । जब बहादुर शाह दिल्ली के राज गद्दी पर बैठे तब उन्होंने ने छत्रसालसिंह को झांसी की रियासत जागीर के तौर पर देदी । राजा छत्रसाल के सौभाग्य के सितारे को चमकता देख कर बहुत से लोगों से न रहा गया और मालवा के सूबेदार और इलाहाबाद के नवाब बार बार उनके राज पर चढ़ाई करने लगे । छत्रसाल इस वक्त पर बूढ़े और पराक्रम हीन होने के कारण शत्रुओं को पराजय करने में असमर्थ होकर सहाराष्ट्राधिपति बाजीराव पेशवा के शरणगत हुए । छत्रसाल की दशा पर दया करके पेशवा ने मुसलमान सरदारों का सामना किया और उनको जीत



कर राजा छत्रसाल को राज्य पर बिठाया । छत्रसाल ने कृतज्ञ होकर तीन करोड़ की आमदनी वाली रियासत बाजीराव को दिया इसी रियासत में बीस लाख की आय का भांसीखण्ड शामिल था । पेशवा ने भांसी की सूबेदारी पर रघुनाथ हरिनवलकर एक नामी सरहट्टे सदाँर को नियत किया । वही सदाँर महारानी लक्ष्मी बाई के पति के वंश का आदि पुरुष कहा जायगा ॥

## MATHEMATICS.

### ARITHMETIC AND ALGEBRA.

BABU UMESH CHANDER GHOSH, M.A. ... }  
C. H. DIXON, ESQ., M.A. ... } *Examiners.*

1. Simplify :—

$$(a) 5 - 5 \times \frac{2 + 1\frac{1}{2}(2 + 1\frac{1}{2})}{1\frac{1}{2} + 2(2 + 1\frac{1}{2})}$$

$$(b) \frac{.125 \times (.175 \text{ of } .285714)}{.00025}$$

2. (a) Express  $\frac{3}{8}$  of 7s. 6d. + 1.25 of 5s. — .545 of 9s. 2d. as a decimal fraction of £ 10.

(b) Extract the square root of 40000.400001.

3. What is an 'aliquot' part of a quantity ?

Find, by practice, the time of building a wall 27 yards long; 1 yard thick and 6 feet high, of which one cubic yard is built in 3 hours 18 minutes and 45 seconds.

4. How far shall I ride with a friend who leaves Allahabad at 9 A.M., and will drive to Karchana which is 10 miles from Allahabad in one hour, that I may, by walking back at the rate of 4 miles an hour reach home at 11-30 A.M. ?

5. A owes B Rs. 1,435 due at the end of 4 months, Rs. 630 due at the end of 8 months, Rs. 860, due at the end of a year. B wants his money forth with. What ought A to pay him reckoning interest at  $7\frac{1}{2}$  per cent ?

6. (a) Factorise :—

(i)  $x^{12} - a^{12}$ ,

(ii)  $x^4 + 2x^2 + 9$ ,

(iii)  $8x^2 + 6x - 27$ .

(b) Find the H. C. F. of  $x^{18} - 1$  and  $x^{19} - 1$ .

7. Simplify :  $\frac{a^3}{(a-b)(a-c)} + \frac{b^3}{(b-a)(b-c)} + \frac{c^3}{(c-a)(c-b)}$

8. Solve the following equations :—

(a)  $\frac{7x+1}{x-1} = \frac{35}{9} \left( \frac{x+4}{x+2} \right) + \frac{28}{9}$ .

(b)  $\frac{a_1}{x} + \frac{b_1}{y} = c_1$

$\frac{a_2}{x} + \frac{b_2}{y} = c_2$ .

9. If  $a : b :: c : d$  and  $p : q :: r : s$ , prove that

$ap + cr : bq + ds :: \sqrt{acpr} : \sqrt{bdqs}$ .

10. Two towns  $X$  and  $Y$ , on a railway, are 46 miles apart. Coals at  $X$  cost 18s. per ton and at  $Y$  16s. per ton; they cost 2 pence per ton per mile to carry on the line. Find the distance from  $X$ , of the place at which it is immaterial to the consumer whether he buys coals from  $X$  or from  $Y$ .

## GEOMETRY AND MENSURATION.

PT. SUDHAKAR DUBE,

W. JESSE, ESQ., M.A.,

... } *Examiners.*  
... }

1. (a) Bisect a given rectilinear angle:

(b) Shew that the vertex of the equilateral triangle described in the figure of 1. 9 must lie between the two straight lines which make the given rectilinear angle.

2. From a given point it is required to draw to two parallel straight lines, two equal straight lines at right angles to each other.

3. (a) If a straight line be divided into any two parts, four times the rectangle contained by the whole line and one of the parts, together with the square on the other part, is equal to the square on the straight line which is made up of the whole and that part.

(b) Prove that four times the rectangle contained by any two unequal straight lines is equal to the difference of the squares on their sum and on their difference.

4. Describe a segment of a circle, containing an angle equal to a given rectilinear angle, on a given straight line.

5. Construct a triangle, having given the base, the vertical angle, and the point in the base on which the perpendicular falls.

6. Inscribe a regular hexagon in a given circle.

7. Describe a circle which shall pass through two give points on the same side of a given straight line, and touch that straight line.

8. (a) What is meant by area ?

(b) The area of an acute-angled triangle is 336 sq. ft. and the sides are 26 feet and 30 feet ; find the base.

9. A circle of 120 feet radius is divided into three parts by two concentric circles ; find the radii of these circles, so that the three parts may be of equal area.

10. Plan a field from the following notes and find its area in acres, roods, and pole :—

	Links.	
	A	
0	409	
K 20	60	
	30	0 H
	20	10 G
	C	0
Turn	to the	left
	C	
	169	0
	30	20 F
	B	0
Turn	to the	left
	B	
	510	0
	160	30 E
	50	10 D
	0	0
From	A	go East

## ARABIC.—FIRST PAPER.

MAULVI SYED ANJAD ALI, M.A., *Examiner.*

1. Translate into English and explain the grammatical principles referred to in the following giving examples of each :—

(a) جاء نكوي علي باب نكوي فدنق بابيه فقال من انت  
فقال الزائر احمد فاجاب صاحب الدار انصرت فقال احمد لا  
ينصرت فاجاب اذا كان نكرة ينصرت \*

سئل الكسائي عن من سها عن سجود السهو هل يسجد (b) مرة اخرى قال لا فليل و لم قال لان البصر لا يصغر \*

2. Re-write the following with vowel marks and translate into English :—

فلما سمع امير المؤمنين هذا الشعر طرب طربا عظيما فقالت له اخته يا اخي من حكم علي نفسه بشيء لزمه القيام به والعمل بقوله و انت حكمت علي نفسك بهذا الحكم - ثم قالت يا نعمة قف علي قدميك و كذا قفي انت يا نعم - فوقفا فقالت اخت الخليفة يا امير المؤمنين ان هذه الواقعة هم نعم المسروقة سرقها الحجاج بن يوسف الثقفي و ارسلها لك و كذب في ما ادعاء في كتابه من انه اشتراها بعشرة آلاف دينار - و هذا الواقف هو نعمة بن الربيع سيدها - وانا استملك بحرمته اباعهك الطاهرين و بعهدة و الحقيق و العباس ان تغفوعنها و تصفع عن جريمتها و تهبها لبعضها لتغتم اجرها و ثوابها فانها في قبضتك و قد اكلا من طعامك و شربا من شرابك وانا الشفيع فيهما المسترربة لهما \*

3. Who were حمزة, عقيل, and عباس ? How was the خليفه connected to them ?

4. Translate into English and name the author of the extract :—

لا خير في التجارب \* و انز كو في العواقب  
فليس بالقياس \* تجري امور الناس  
ينعم زيد بالذي \* بمثله عمرو اذ  
لو كان كل تاجر \* يربح في المتاجر  
لا تجر الناس معا \* او خاب كل من سعي  
لم يسع قط احد \* ولم يكن يجهتد  
لو كان كل من ركب \* و سار في البحر عطب  
لم يركب البحر احد \* و لا انتحاه و قصد  
او سلبوا جميعا \* و لم يروا فطيعا

لا زد حموا عليه \* و با در وا اليه  
 قل لي فاي تجربته \* تصح مع ذي الغلبه  
 ان الليالي متعبه \* حب البقاء معطبه

5. Describe the etymological changes that the following have undergone;—  
 انتحن، ام يكن، ام يمع، خاب، سعى، اتجر، ليسر، قل، ازدهوا، ام يروا، تعح.

6. Give the future (مضارع) of  
 طلب، ازدهم، يادر، سار، قصد، اذني، قل، سعى، خاب، قياسي، سلموا، ركب.

7. Translate into English and mention the allusion referred to in the following:—

انها الدنيا فناء ليس في الدنيا ثبوت  
 انها الدنيا كبيت نسجته العنكبوت  
 ولقد يكفيك منها ايها الطالب قوت  
 ولعمري عن قليل كل من فيها يهوت

### ARABIC.—SECOND PAPER.

MAULVI MOHAMMAD YUSUF JAFRI ... Examiner.

N.B.—Give vowel marks to every Arabic word you write.

1. Translate into English:—

الشباب شعبة الجفون - الدنيا مرزعة الاخوة - القناعة  
 مفتاح الراحة - العاقل تكفيه الاشارة - احسن كما احسن الله  
 اليك - زرنى غبا تزدن حبا - من عرت نفسه فقد عرت ربه  
 من لا يشكر الناس لا يشكر الله - اطلب العلم من الهمد الي  
 اللحد - عز من قنع و ذل من طمع - الدنيا جيفة و طالبها  
 كلاب - اثنان لا يشبعان طالب علم و طالب مال - لا تستصغر عدوك  
 وان ضعف - الصديق ينجي والكذب يهلك - من كثر عياله كثر وبالاه  
 ان قل مال الهرق قل صديق - اذا اراد الله شيئا هباً اسبابه -  
 ليس الامور بصاحب من لم ينظر في العواقب - من يفرعن  
 بلاء يسير ربها يقح في بلاء كبير - قل لمن يذكر الله تورعا

از کور بک تضرعا - من اراد ان يؤيده غناه فليكن قانعا بها رزقه  
 الله - عليك ياكتساب العلم فان القلب الهيت يحيي بالعلم -  
 ان الضعيف قد يغلب علي القوي بكياسته والقوي يعجز عن  
 الضعيف لجهالته - قلب الخافل في لسانه ولسان العاقل في  
 جنانه فهذا يتكلم بعد ما يتفهم وذلك يتقول قبل ما يتعقل -  
 ان قربة الاشوار اضرار بالابرار والكرم علي اللئام ظلم علي  
 الكرام - كل من عليها فان ويبقي وجه ربك ذو الجلال والاكرام \*

2. Translate into Arabic:—

If you will disobey me I will beat you severely. When ever I went to her I saw her reading her book. His two brothers will start on their journey to-morrow. Yesterday Zaid gave me two *dirhams* to buy a cap for his son. Will you not go to school to-day? Is Khalid the person who has stolen your property, or his father? What things do you find missing? Amir's elder brother died in a battle in the year one thousand two hundred and fifty-eight A. H. Did you not say to him so and so? Yes. Have you sent the letter to your teacher? Yes. How did you cross the river? He is greater in wealth but less in wisdom than I. Bakr is the most learned of all his fellow citizens. Why do you say what you do not do? The teacher beat the boy by way of correction, and he ran to his father crying. I bought twelve oranges for three *dirhams*. I must finish my work before sunset. I sleep two hours daily at noon. Make ablutions before you pray. Never make promises that you cannot fulfil.

3. State the difference between the use of <sup>عروض</sup> and <sup>ظا</sup> and <sup>قد</sup> used with an Aorist and a Preterite, and give examples.

4. Mention the governments of <sup>ان</sup> and <sup>آن</sup> - <sup>من</sup> - <sup>من</sup> - <sup>لا</sup> - <sup>ما</sup> with examples.

5. Write the following nouns in all the three cases—the Nominative, the Accusative, and the Genitive:—<sup>مسلمون</sup> - <sup>عمار</sup> - <sup>اولو</sup> and <sup>ذو</sup> - <sup>يوسف</sup> - <sup>موسى</sup>

## PERSIAN.—FIRST PAPER.

MAULVIE SYED ABDULLAH, }  
 ,, SYED KALAN, } *Examiners.*

## 1. Translate into English:—

(a) قضا را نخستین کسی که در آمد گدای بود که همه مهر (a)  
 لقمه لقمه اندوخته و رقه بر رقه دوخته بود - ارکان دولت  
 واعیان حضرت وصیت ملک را بجا آوردند - و تسلیم مغایع  
 قلاع و خزاین بدو کردند - مدتی ملک راند - بعضی از ارکان  
 دولت گردند از مطاوعت او پیچیدند و ملوک دیار از هر طرف  
 بهنازعت برخاستند و بهقاومت لشکر آراستند - فی الجمله  
 سپاه و لشکر بهم بر آمدند و برخی از اطراف بلاد از تصرف او  
 بدر رفت - درویش ازین واقعه پریشان و خسته خاطر هپی  
 بود \*

(b) در دل چنان میگذاشت و در خاطر چنان میگذاشت که  
 این نامه بزودی بآخر نه انجامد و خامه در طی مقاصد آن  
 حالیا از جنبش نیار آمد - اما چون آئینه طبع گوینده زنگ  
 ملالت بگرفت بصیقل صدق و غبت شونده صقالت نپذیرفت  
 برینقدر اختصار رفت ..... امید بکارم اخلاق مالمطه کنندگان  
 آنکه چون بر خللی مطلع شوند بذیل عفو و اغماض بپوشند  
 و در افشای هذیان اعتراض و اعماز نکوشند \*

2. (a) What is the force of را in قضا and also in چرا -  
 مرا - چرا - زید را پسر and

(b) Explain the formation of the words درویش - گریخته - جنبش -  
 کنندگان and

(c) State the singular or plural, as the case may be, and  
 the English meanings of قلع - خسته لقمه - رقه - دیار - مذازعت - بلاد - تصرف -  
 ارکان - دولت - اعیان - وصیت - مغایع - قلاع - خزائن - آخر - صیقل -  
 مکارم - اخلاق - ذیل - اعتراض

3. Render into English the following couplets. What is a *مثنوی* ? and why is it so called ?

(a) یوسف که چندین بلای یدوبند \* چو حکمش روان گشت و قدرش بلند  
گنه عفو کرد آل یعقوب را \* که معنی بود صورت خوب را  
بکردار بد شان مقید نکرد \* بضاعت مزجات شان رد نکرد  
زلطفت همی چشم داریم نیز \* برین بے بضاعت ببخش ای عزیز  
دلی کز دلبری ناشان باشد \* زهرشادی و غم آزاد باشد (b)  
غم دیگری نگیرد دامن او \* نگردد شادی پی-راهن او  
اگر گردد جهان دریای اندوه \* بر آرد موجهای غصه چون کوه  
ازان نم دامن او تر نگردد \* ز اندوهی که دارد بر نگردد  
و گر جشن طرب سازد زمانه \* دهد او عیشهای جاودانه  
فرو پیچد ازان جشن طرب روی \* نخواهد کم غم خود یکسر روی

4. (a) Narrate briefly the story of یوسف in good Persian Prose, inserting couplets and hemistiches suitable to the occasion from quistion 3.

(b) By general rule we give کسره to the final letter of مضاف in Persian. What are the special rules regarding the اضافت کسره ? Define متوالي and give an example.

5. Translate into English the following lines, with notes, very brief but to the point, on *در قائل نقش* - *روح - شاعری حلاج - لاله در قائل نقش* What is the root of *تعوین طوفان* - *کعبتین - طاسک - حمائل - چشم زخم - تعوین طوفان* ? Is *شمائل* singular or plural ?

(a) هر نکته که گفتم در وصف آن شمائل

هر کس شنید و گفتا لاله در قائل

حلاج بر سر دار این نکته خوش سراید

از شافعی میپرسید امثال این مسائل

از آب دیده صدرة طوفان نوح دیدم

از لوح سینه هرگز نقش نگشت زائل

ای دوست دست حافظ تعوین چشم زخم است

آیا بود که بینم در گردنت حمائل



(b) از هرزه بهر دري نهي بايد تاخت  
 بانبيک و بد زمانه مي بايد ساخت  
 از طاسک چرخ و کپتيسن تقدير  
 هر نقش که پيدا شود آن بايد باخت

6. Analyse according to the Persian System:—

الف را وار ميخوانند صائب  
 زبان پارسي از بس زبون است

7. Distinguish between a *طاعه* and a *غزل*.

### PERSIAN.—SECOND PAPER.

H. R. WILLIAMS, ESQ.,  
 HAFIZ NIAZ AHMAD,

... } *Examiners.*

1. Translate into English:—

در اخبار آمده که پسر امير بلخ روزی بتمشاشا بيرون آمده  
 بود - گزارش برد يوار پستى افتاد نگاه کرد پيرى ديد زنار  
 برميان بسته و بيلي در دست گرفته درخت مي نشاند - امير  
 زاده گفت اي پير درختى که ميوه آن نخواهي خورد چرامى  
 نشاني - پير گفت ديگران مي کاشتند ما ميخوريم تا ديگران  
 بخورند و شايد که ما نيز بخوريم - امير زاده جوانى نور سينه  
 و مغرور بود بطلاق سوگند خورد که تراز ميوه اين باغ نخواهي  
 خورد - اين بخت و بگذشت - پير پرسيد که اين چه کس بود  
 - گفتند پسر امير بلخ - بعد از مدتي امير زاده بتمشاشا سوار  
 شده کوبه خود ميراند بباغى رسيد بخانيت دلکشا و روضه ديد  
 بسيار خوش بود - امير زاده را آن باغ بسيار خوش آمد -  
 عدنان باز کشيد و از مرکب پياده شد و در باغ در آمد - پير  
 ديد زنار بند که دران باغ ميگشت چون امير زاده را ديد  
 نشناخت و امير زاده نيز او را ندانست پير طبقه از ميوه هاى  
 چيده و لطيف پيش آورد امير زاده آغاز خوردن کرد - در  
 اثناى ميوه خوردن قدرى بدست پير داد که توهم بخور و با

ما اتفاق نمائے۔ پیر آن میوہ را بہ یکے از ملازمان او کہ  
 ایستادہ بودند داد و گفت مرا ازین میوہ نشاید خوردن -  
 امیرزادہ پرسید کہ چرا - گفت بجهت آنکہ وقتے کہ من این  
 درختان را می نشاندم پسر امیر بلخ بدینجا رسید و مرا در  
 نشاندن درخت سرزنش کرد کہ عمرے گذرانیدہ و بلبل گور رسیدہ  
 چہ املے (امید) دور و دراز داری کہ درین سن درخت میکاری  
 کہ بعد از چند سال دیگر میوہ آن خواهد رسید - من سخن  
 اورا جواب گفتم و او بطلاق سوگند خورد کہ تو از میوہ این  
 باغ نخوری - من از حرمت آنکہ شاید زندہ و کد خدا باشد  
 میوہ این باغ نہی خورم تا طلاق واقع نشود و من از عہدہ  
 دیانت بیرون آمدہ باشم \*

## 2. Translate into Persian :—

Egypt, though bordering on Libya, does not abound in wild beasts : but all that they have are amounted sacred, as well those that are domesticated as those that are not. But if I should give the reasons why they are consecrated, I must descend in my history to religious matters, which I avoid relating as much as I can ; and such as I have touched upon in the course of my narrative, I have mentioned from necessity. They have the following custom relating to animals. Superintendents, consisting both of men and women, are appointed to feed every kind separately ; and the son succeeds the father in this office. All the inhabitants of the cities perform their vows in the following manner : Having made a vow to the god to whom the animal belongs, they shave either the whole heads of their children, or a half, or a third part of the head, and then weigh the hair in a scale against silver, and whatever the weight may be, they give to the superintendent of the animals ; and the superintendent in return cuts up some fish, and gives it as food to the animals. Should any one kill one of these beasts, if wilfully, death is the punishment ; if by accident, he pays such fine as the priests choose to impose.

## SANSKRIT.—FIRST PAPER.

PT. MOTI LAL BHATTACHARYA, M.A., *Examiner.*

### 1. Translate the following passage into English :—

अतीतलाभस्य सुरक्षार्थं भविष्यलाभस्य च सङ्गमार्थम् ।  
 आपत्प्रपन्नस्य च मोक्षार्थं यन्मन्त्रयतेऽसौ परमो हि मन्त्रः ॥

तच्छ्रुत्वा वायस आह भोः यद्येवं तत्क्रियतां सदृशः ।  
 एष चित्राङ्गोऽस्य मार्गे गत्वा किञ्चित्पल्वलमासाद्य तस्य  
 तीरे निश्चेतनी भूत्वा पततु । अहमप्यस्य गिरमि समानस्य  
 मन्दैश्चञ्चुप्रहारैः गिर उल्लेखयामि येनासी दुष्टलुब्धकोऽमु-  
 स्मृतं सत्वा सन चञ्चुप्रहरणप्रत्ययेन सन्धरकं भूमीं निपत्वा  
 मृगार्थं परिधाविष्यति । अत्रान्तरे त्वया दर्भमयानि पागानि  
 खण्डनीयानि येनासी सन्धरको द्रुततरं पल्वलं प्रविशति ।

(a) Name and expound the Samāsas in the underlined words.

(b) Explain and give rules for the Sandhis in:—

तच्छ्रुत्वा, एष चित्राङ्गः, मन्दैश्चञ्चुप्रहारैः, यद्येवं and  
 वायस आह ।

(c) Give the प्रकृति and प्रत्यय of मत्वा and तमाह्य, and con-  
 jugate their roots in the first preterite (जिङ्) third person in  
 all the numbers.

II. Explain in Sanskrit:—

1. अधोधः पश्यतः कस्य सहिमा नोपजायते ।  
 उपर्युपरि पश्यन्तः सर्व एव दरिद्रति ॥
2. परोक्षे कार्यहन्तारं प्रत्यक्षे प्रियवादिनम् ।  
 वर्जयेत्तादृशं मित्रं विषकुम्भं पयोमुखम् ।
3. न चायं न परोलोकस्तस्य चैव परन्तप ।  
 अमानिता नित्यमेव यस्यैते गुरवस्त्रयः ॥

(a) Decline the cases in सहिमा, कार्यहन्तारं and मित्रं in all  
 the singular case-endings.

(b) Name the speaker and the person spoken to, in the  
 extract (3). Who are referred to by “गुरवस्त्रयः ?”

(c) Give the form of the root in उपजायते in the second  
 preterite (जिङ्) second person singular.

III. Paraphrase the following :—

1. अल्पानामपि वस्तूनां संहतिः काय्यसाधिका ।

तृणैर्गुणत्वमापन्नैर्बध्यन्ते सत्तदन्तिनः ॥

2. कार्यः सन्निहितापायः सम्पदः पदमापदासु ।

समागमाः सापगमाः सर्वेषामेव देहिनासु ॥

3. न स्वल्पस्य कृते भूरि नाशयेन्सतिमान्नरः ।

एतदेव हि पाण्डित्यं यत्स्वल्पाद् भूरिरक्षणासु ॥

(a) Change the voice of the second half of extract (1).

(b) Give the third preterite (लुङ्) form of the root in अवेहि in the third person singular.

(c) Parse कृते in extract (3.)

IV. Transtale in English or Hindi :—

अत्यच्चेनाविरुद्धेन सुवृत्तेनातिचारुणा ।

अन्तर्भिन्नेन सम्प्राप्तं सौक्तिकेनापि बन्धनम् ॥

Which words in the above extract have two meanings ? Give their different meanings in Sanskrit.

V. Reproduce the story of सोमशर्मपिता in English.

VI. Give exact synonyms of :—कापुरुषाः, अगदः, अश्रद्धेयं, भूतिः, नदीशः, कृत्रिमं, मनस्विनः, व्यसनस्य and असत्यसन्धम् ।

VII. Correct the following and give reasons for your corrections :—

हीनसेवा न कर्तव्यं कर्तव्यं सहदाश्रयम् ।

पयोऽपि शौण्डिनीहस्ते वारुणीमिति कथ्यते ॥

Give the purport of the above extract after correction in English.

VIII. (a) Decline एतद् fully in all the genders.

(b) What Vibhaktis would you give to words in connection with धिक्, नमः, सह, विना and अलम् ? Illustrate their use by forming separate sentences.

SANSKRIT.—SECOND PAPER.

PT. A. R. BHATTACHARYA, M. A., *Examiner.*

I. Translate into Sanskrit:—

(a) Devadatta read the book in seven days.

(b) Knowledge is better than wealth and virtue is better than knowledge.

(c) I do not like your giving *Dakshina* to men who are not learned.

(d) Better to roam with wild beasts than live in the company of fools.

(e) In a certain village there lived a Brāhmana called Yajnadatta. His wife distressed by poverty said to him every day: "Dost thou see that thy children are dying of hunger? Leave this place and seek elsewhere food for the little ones."

II. Translate into English:—

(a) उत्तमो नातिवक्तास्यादधनो बहुभाषकः ।

न हि स्वर्णे ध्वनिस्तादृग यादृक् कांस्ये व्रजापते ॥

(b) यत्र नार्यस्तु पूज्यन्ते रमन्ते तत्र देवताः ।

यत्रैतास्तु न पूज्यन्ते सर्वास्तत्राफलाः क्रियाः ॥

(c) सन्तुष्टो भार्यया भर्ता भर्ता भार्या तथैव च ।

यस्मिन्नेव कुले नित्यं कल्याणं तत्र वै ध्रुवम् ॥

(d) मृगा मृगैः सङ्गमनुव्रजन्ति

गावश्च गोभिस्तुरगास्तुरङ्गैः ।

सूखाश्च सूखैः सुधियः सुधीभिः

समानशीलव्यसनेषु सङ्गमम् ॥

(e) पुरा किल गाधिर्नान कश्चिद्राजा बभूव । तस्य पुत्रो विश्वामित्रो नामासीत् । पितुः पश्चाद्विश्वामित्रो राज्येभ्यषिच्यत । अथैकदा विश्वामित्रः सेनामादाय मृगयायै वनं गतः । तत्र स वशिष्ठस्याश्रमं विलोकाधितयत् ।

ग्रहो रसणीयोऽयमात्रनः । तदत्र कञ्चित् कालं विश्रम्य  
वशिष्टमृषिं दृष्ट्वा संभाष्य च इतोऽन्यत्र गच्छामीति । यदा  
वशिष्टो राजानमभ्यागतमपश्यत्तदा तं च बहुमानमाह ।  
महात्मन् स्वागतं ते । अत्रासन उपविश्यतामिति । ततः  
शिष्यैरानीतानि फलानि मूलानि च वशिष्टो विश्वामित्रा-  
योपाहरत् । प्रजायाश्च कुशलमपृच्छत् । वशिष्ठात्तां पूजां  
प्रतिगृह्य विश्वामित्रोऽपि तं शिष्याणां धेनूनां च कुशलं  
पृथ्पृच्छत् । सर्वत्र न कुशलं विद्यत इति वशिष्टस्तं प्रत्य-  
वदत् ॥

## HISTORY.

W. C. HORST, ESQ.,

H. SHARP, ESQ., B. A.,

... } *Examiners.*

1. What families of kings have reigned in England since the battle of Hastings? What circumstances led to each change of dynasty?
2. Write a short account of the reign either of Edward III. or James I.
3. What causes led to the War of the Spanish Succession? What battles were fought in it? Give the name and terms of the treaty by which it was brought to a close.
4. Describe the Parliament of Edward I. and state what is meant by the "Confirmation of Charters."
5. Give an account of Asoka and his reign.
6. Name in chronological order the first eight Moghul Emperors, giving the contemporary British Sovereign. Mention the chief events in the reign of Akbar.
7. Describe the political state of India at the time of Lord Wellesley's appointment as Governor-General; and write a short account of his administration.
8. How and when did the British acquire Bombay, Mauritius, Sindh, Jamaica?
9. Write a short note on each of the following:—Sakuntala, "Lion of the Punjab," Dupleix, Blake, Petition of Rights, Anti-Corn-Law League, Domesday Book.
10. With what historical events are the following names connected?—Thaneswar, Buxar, Chilianwala, Plassey, Ruunimede, Lewes, Trafalgar, Balaklava.

## GEOGRAPHY.

REV. G. M. BULLOCH,  
W. HARDIE, ESQ., ...

... } *Examiners.*

1. Define the following terms: Steppes, Oasis, Gorge, Climate, Dew, Meridian, Gravitation.
2. What and where are the following: Amoor, Brindisi, Corsica, Kafiraria, Ladoga, Oder, Shannon, Tasmania.
3. In what parts of the earth are the following products found: Gold, Tin, Coal, Salt, Sugar-cane, Indigo, Rice, Cotton.
4. Draw a Map of Indian Ocean north of the Equator and between Africa and India; show the gulfs and bays connected with it, the islands, the capes, the mouths of rivers, and the principal towns on the coasts.
5. Mention in order the principal towns and mouths of rivers you would pass in following the coasts from Rangoon to Bombay.
6. Describe the different races of people inhabiting Asia.
7. Explain how Evaporation and Condensation are caused. Mention some of the principal results of these processes.
8. How do you prove the existence of the interior heat of the earth? What is the cause of the movements of the earth's crust?
9. How is it that if two persons set out from the same place and travel in exactly opposite directions when they meet on the other side of the globe they will differ by a day in their reckoning of time?

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### GEOMETRICAL DRAWING.

G. T. SPARKE, ESQ., *Examiner.*

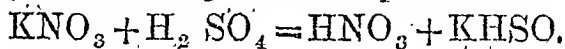
1. Divide a line 6·3 inches long so that the parts may be to each other in the proportion of 3, 2½, 1½, 2¼.
2. Two straight lines intersect at an angle of 45°, draw a circle of 1½ inch radius, touching both lines.
3. Construct a right angled triangle with hypotenuse of 2½ inches and an acute angle of 30°.
4. Describe a segment of a circle having a base of 2·75 inches and containing an angle of 165°.
5. From a point P outside a circle of 2 inches radius, draw two lines containing an angle of 30° and tangent to the circle.

6. A scale to measure single feet is required for a map on which a distance of 300 yards is represented by 6 inches.

## ELEMENTARY PHYSICS AND CHEMISTRY.

BABU G. N. CHAKRAVARTI, M.A., LL.B., *Examiner.*

1. Describe Bramah's Press. Upon what property of liquids does its action depend? In a Bramah's Press the area of the large piston is 300 times the area of the small piston; if a force equivalent to the weight of 20 lbs. is exerted on the small piston, find in tons the pressure produced by the large piston.
2. Describe the construction and use of a barometer. What is meant by "Torucellian vacuum." In the construction of a barometer, why is mercury preferred to water.
3. Distinguish between "evaporation" and "ebullition." Describe an experiment to show that water can be boiled without the addition of heat, and explain clearly the principle on which it is possible to do so. Why does water boil at a lower temperature on the top of mountains than on the plains?
4. Mention as fully as you can what happens when a ray of white light passes through a prism of glass. What is meant by the "solar spectrum?"
5. What is the difference between "electrical conduction" and "electrical induction"; Describe some experiments to illustrate the latter. Give a description of the gold leaf electroscope, and explain the principle on which it works.
6. Devise experiments (1) to show that carbonic acid gas is largely present in the air we breathe out, and (2) to illustrate the fact that plants inhale carbonic acid gas and exhale oxygen.
7. What is meant by "impurity of water?" Distinguish between "impurities in solution" and "impurities in suspension." A tumbler contains clear transparent *sherbet* (sugar dissolved in water). Is there any "impurity" in the water of the tumbler?
8. Mention clearly and accurately the three parts of a flame and prove by an experiment that the black or the inner cone is the zone of no combustion.
9. How would you get nitrogen gas from the air? Name as many substances containing nitrogen as you are familiar with. Interpret fully the following chemical equation:—





10. Describe the properties of copper and mention some of its important alloys. Explain what is meant by 'native copper' and 'copper ores.' How would you test a solution of copper sulphate?

## BOOK-KEEPING.

B. D. GORDON, Esq.,      ...      *Examiner.*

1. (a) Define Account. Distinguish between a Real and a Subsidiary Account. What three operations are necessary to obtain the Balance of an Account? What is meant by closing an Account? What questions does the Cash Book answer?

(b) Work out and Balance the following Cash Account:—  
Balance for March, Rs. 794-4-0—April 2. Pay Black & Co. Rs. 70-6-9—April 3. Received from Day & Co., Rs. 120-7-8—April 5. Pay for Coal, Rs. 750-6-4—April 5. Carriage for ditto, Rs. 140-0—April 10. Paid for wood, Rs. 790-4-9—April 15, Sell Coal for Cash, Rs. 940—April 20. Sell Wood for cash, Rs. 750-4-2. Household Expenses, Rs. 450.

II. Jany. 1. Balance at Bank, Rs. 5,920-8-6; other Ledger Balances—Bills Payable, Rs. 5,322-8-0; Bills Receivable Rs. 1,210-4-6; Cash, Rs. 330; Goods, Rs. 1,280.

		Rs.	a.	p.
Jany. 2	Sold B. Archer, goods	...	610	8 0
" 5	Drew cheque for pretty Cash	...	100	0 0
" "	Bought of C. Browne, goods	...	1,440	4 0
" 8	Sold D. Carpenter, goods	...	480	4 0
" "	Paid into Bank	...	330	0 0
"	Received of B. Archer his acceptance at one month to balance account	...	600	0 0
" 10	Sold E. Durrant, goods	...	410	8 0
" "	Bought of F. Evans, goods	...	2,160	4 0
" 12	Accepted draft of C. Browne at 3 months	...	1,550	0 0
" "	Paid into my account at Bank by Forbes	...	480	0 0
" 10	Paid F. Evans on account by cheque	...	1,500	0 0

		Rs.	a.	p.
Jany. 10	Obtained new cheque book for Bank, stamps, Rs. 4-4-0			
" 15	Gibson and Co.'s draft due this day paid at Bank	3,220	0	0
" 20	Received of E. Durrant his acceptance at one month	340	8	0
		Rs.	a.	p.
Goods returned by E. Durrant	...	70	0	0
Jany. 20.	Paid into Bank for discount—			
B. Archer's acceptance	...	600	0	0
E. Durrant's	"	340	8	0
		938	4	0
		940	8	0
Discount	...	2	4	0
" 31	Accepted draft of C. Browne @ 1 month	938	4	0
" "	Paid petty expenses in month	76	4	0

1. Enter in the Cash Book all the Cash and Bank transactions.

2. Carry all the Transactions through the Journal.

3. Post from the Journal into the Ledger inserting the folio reference in the proper columns of both Journal and Ledger.

4. Balance and close the Ledger, preparing a Trial Balance, and opening a Balance account. The goods on hand may be valued at Rs. 3,800. Set aside 10 per cent. of the net profits to cover possible future bad debts, showing the proceedings on the face of the Ledger.

5. What have I *gained* or *lost* during the period ?

6. Am I *solvent* or *insolvent* at the time of balancing ?  
By how much ?

## POLITICAL ECONOMY.

J. G. JENNINGS, ESQ., M. A.

... *Examiner.*

1. Define Wealth and Money, carefully distinguishing between them, with examples. Describe the Mercantile system and explain errors.

2. Show that labour is indispensable to the production of wealth, and define the exact service rendered by labour to production, illustrating both parts of your answer by means of examples. Distinguish between productive and unproductive labour, giving examples.

3. Define capital; and enumerate its chief forms carefully distinguishing between them, with examples. Discuss whether capital in order to fulfil its functions must be consumed.

4. What is meant by "effectual demand?" Explain the statement that "the price of commodities must be such as to equalise the demand with the supply." Show what causes regulate the price of agricultural produce.

5. Explain Ricardo's theory of Rent. Discuss whether rent is a part of the price of agricultural produce.

6. Of what elements are the Profits of Capital composed? Discuss whether the Rate of Interest is the same in all trades in the same country and at the same time.

7. Explain the manner in which the supply of an exported commodity is equalised with the demand.

8. Explain the nature of Bills of Exchange, and the process of Bill Discounting.

## ENTRANCE AND SCHOOL FINAL-EXAMINATIONS, 1897.

## ENGLISH.—FIRST PAPER.

C. H. LINTON, ESQ., M. A.

F. SUDMERSEN, ESQ., M. A.

J. C. KEMPSTER, ESQ.,

... }  
 ... } *Examiners.*  
 ... }

1. Give the meaning of the words and phrases in the following passages printed in large types:—

(a) Arabia, in the opinion of naturalists, is the genuine and original country of the horse; the climate most propitious not indeed the size, but to the spirit and swiftness, of that generous animal. The horses of the Bedoween are educated in the tents, among the children, with a tender familiarity, which trains them in the habits of gentleness and attachment. They are accustomed only to walk and to gallop; their sensations are not blunted by the incessant abuse of the spur and the whip; their powers are reserved for the moments of light and pursuit: but no sooner do they feel the touch of the hand or stirrup, than they dart away with the swiftness of the wind; and if their friend be dismounted in the rapid career, they instantly stop till he has recovered his seat.

(b) To one given to day-dreaming, and fond of losing himself in reveries, a sea voyage is full of subjects for meditation; but then they are the wonders of the deep and of the air, and rather tend to abstract the mind from world themes. I delighted to roll over the quarter-railing or climb to the maintop, of a calm day, and muse for hours together on the tranquil bosom of summer's sea; to gaze upon the piles of golden clouds just peering above the horizon, fancy them some fairy realms and people them with a creation of my own; to watch the gentle undulating billows, rolling their silver volumes, as if to die away on those happy shores.

What are 'the wonders of the deep and of the air,' and how would they tend to abstract the mind from worldly themes? What does the disjunctive conjunction *but* imply in 'but then they are the wonders of the deep and of the air?'

(c) Of Nelson and the North  
 Sing the glorious day's renown  
 When to battle fierce came forth  
 All the might of Denmark's crown,  
 And her arms along the deep proudly shone;  
 By each gun the lighted brand  
 In a bold determined hand,  
 And the Prince of all the land  
 Let them on.  
 Like Leviathans afloat  
 Lay their bulwarks on the brine;



(vii) There is not in my opinion, anything more mysterious in Nature than this instinct in animals, which thus above reason, and falls infinitely short of it.

3. Write brief answers to the following questions :—

- (i) What does Addison mean by the expression 'fill up the empty spaces of life?' Mention one or two methods suggested by him for achieving this end.
- (ii) Who was Cardinal Ximenes?
- (iii) Into what trouble had Antonio fallen; and how did Portia rescue him? Reproduce as far as you can, all that Portia says about the quality of Mercy.

4. Name the authors of the following extracts and give their meaning :—

- (i) Full many a gem of purest ray serene,  
The dark unfathomed caves of ocean bear;  
Full many a flower is born to blush unseen,  
And waste its sweetness on the desert air!
- (ii) A man he was to all the country dear,  
A passing rich with forty pounds a year.
- (iii) Lives of great men all remind us  
We can make our lives sublime.

5. Give the meaning of the following words and phrases; select any three words and any three phrases from among them, and show, by short sentences, how you would use them—

- (1) To take its colour from, (2) turning to our advantage, (3) obsequiousness, (4) catch him on the hip, (5) outright, (6) without scruple, (7) put new heart into, (8) worth while, (9) incentives, (10) without parallel, (11) unpropitious, (12) fractious, (13) indispensable, (14) etiquette, (15) begins his round, (16) under cover of hospitality.

6. Passages from books not prescribed :—

Re-write the following passages in your own words: bring out their meaning fully—

(a) It has often been a question in the schools, whether it be preferable to be a king by day, and a beggar in our dreams by night, or, inverting the question, a beggar by day

and a monarch while sleeping? It has been usually decided, that the sleeping monarch was the happiest man, since he is supposed to enjoy all his happiness without contamination; while the monarch in reality feels the various inconveniences that attend his station.

(b) One day, Harun Al Rashid read  
 A book, wherein the poet said :—  
 “ Where are the kings, and where the rest  
 Of those who once the world possessed?  
 They ’re gone with all their pomp and show,  
 They ’re gone the way that thou shalt go.  
 Oh thou, who choos’st for thy share  
 The world, and what the world calls fair,  
 Take all that it can give or lend,  
 But know that death is at the end ! ”  
 Harun Al Rashid bowed his head :  
 Tears fell upon the page he read.

(c) The king is come to marshal us, in all his armour  
 drest  
 And he has bound a snow white plume upon his  
 gallant crest.  
 He looked upon his people, and a tear was in  
 his eye;  
 He looked upon the traitors, and his glance was  
 stern and high.  
 Right graciously he smiled on us, as rolled from  
 wing to wing.  
 Down all our line, a defening shout, “ God save  
 our Lord the king ! ”  
 And if my standard-bearer fall, as fall full well  
 he may  
 For never saw I promise, yet, of such a bloody  
 fray  
 Press where ye see my white plume shine amidst  
 the ranks of war.  
 And be your Oriflamme\* to-day the helmet of  
 Navarre. †

\* The flag of that country (France).

† The name of the king.

## ENGLISH.—SECOND PAPER.

T. C. JONES, ESQ., M. A.,	...	...	} <i>Examiners.</i>
W. K. BONNAUD, ESQ.,	...	...	
MISS BAILEY,	...	...	

1. The stars burnt out in the pale blue air,  
And the thin white moon lay withering there,  
To tower, and cavern, and rift and tree,  
The owl and the bat fled drowsily.  
Day had kindled the dewy woods  
And the rocks above and the streams below.  
And the vapours in their multitudes,  
And the Apenines' shroud of summer snow,  
And clothed with light of aery gold  
The mists in their eastern caves uprolled,

(a) Arrange in three columns the nouns, verbs and adjectives in the above passage.

(b) Conjugate (*i. e.*, give the chief parts of) all the verbs.

2. Give the plural forms of, the following nouns :—  
Knife, roof, goose, potato, tooth, son-in-law, sheep, summons.

3. (a) Distinguish between *transitive* and *intransitive* verbs, and give examples of each.

(b) Reconstruct the following sentences so that the verbs are in the passive voice :—

(i) The king struck his servant.

(ii) They told the messengers many lies.

(c) What is the *strong* and what is the *weak* conjugation?

Give examples of each.

Conjugate the following verbs :—

Teach, do, seethe, spin, rive, saw.

4. Define relative pronouns, demonstrative pronoun and personal pronouns, and give examples to show the use of each.



What are the two forms of the possessive of personal pronouns, and how are they respectively used ?

How can you explain such a double possessive as.

*This book of mine.*

5. What is the difference between a phrase and a sentence ? Turn the phrases in italics in the following passages into sentences.

- (a) All defence was useless, *the judges having already decided the matter among themselves.*
- (b) The children, *in great distress*, ran home.
- (c) I am glad *to see you well.*
- (d) *During their stay at College*, they made good use of their time.

6. Discuss the grammar of the following idiomatic sentences :—

- (i) They shouted *to each other*.
- (ii) He *himself* did it.
- (iii) *Their* sorrows shall be multiplied *that* run after another God.
- (iv) He read *a few books*.

7. Distinguish between *a compound* and *a complex* sentence. Write out the subordinate clauses contained in the following complex sentences, and state what kind of clause each one is :—

- (a) That he is ill is evident.
- (b) All that glitters is not gold.
- (c) Bring him here that I may see him.
- (d) Tell me where I may find him.
- (e) I remember the place where I was born.

8. Analyse the following sentences in tabular form :—

- (i) The king who had been watching the battle, became alarmed when his army began to retire.
- (ii) History begins when the father explains to his son, how the small world, in which he has to live, came to be what it is.

9. Parse fully every word in the following sentence :—  
He ran home as quickly as he could.

10. (i) What are the rules for turning a simple sentence into an interrogative one in English?  
(ii) Give the rules for the sequence of tenses.

11. Turn the following passage into Indirect Speech :—

(a) "Where are you going?" said the merchant.

"I was just coming to see you."

"To earn my bread by the labour of my hands," replied the youth.

"Do you really want work?" said the merchant,

"Yes, If you have any."

"Then follow me and carry a box from a shop to my house."

"I don't see how I can do that," said the youth.

(b) Write down in Direct Speech the words used by the young man in the following passage :—

The young man said that I had guessed wrongly, that he had nothing of the kind in his thoughts. He hoped I would not be unmindful of him, when I came to England; that he would give me some letters to his friends in London, to let them know how good I had been to him, and in what part of the world, and under what circumstances I had left him.

### ENGLISH.—THIRD PAPER.

DR. G. THIBAUT SET THE PAPER.

C. DODD, ESQ.,

REV. E. S. OAKLEY

...

...

...

...

} *Examiners.*

Translate from Urdu into English :—

(a) ملک چین میں ایک بیوپاری سچائی میں بہت مشہور تھا۔ ایک دن کسی اور دیس کا بیوپاری اوسکے گھر آیا اور دو ہزار کی چاندی کی اینتہیں اوسکے پاس دھر کر اپنے گاؤں کو لوٹ گیا۔ چینی بیوپاری نے تین برس تک اوسکی راہ دیکھی۔ مگر جب وہ نہ آیا تب اوسے بڑی سونچ ہوئی

اور اوسکا پتہ لگانیکے لئے اوسنے اپنا نوکر اوسکے گاؤں کو بھیجا۔ نوکر خبر لایا کہ وہ تو مر گیا پراوسکے گھر میں اوسکے چورو اور پندرہ یا سولہ برس کا ایک لڑکا ہے۔ یہ سننے ہی اوس بیوپاری نے اوسکے لڑکے کو ایک چتھی لکھ کر اپنے گھر بلایا اور اوسے چاندی کی ایتھیں دکھا کر کہا کہ یہ دھن تیرا ہے تو لیجا۔ وہ لڑکا اس بات کو سن کر اچنبھے میں آیا اور اوس بیوپاریکے منہ کو دیکھنے لگا تب اوس بیوپاری نے لڑکے کو سب حال سنا کر وہ دھن اوس لڑکے کو سونپ دیا \*

(b) ہند کے مہالک شمالی کے راجوں میں فیپال سب طرحسے خود مختار اور بڑا قدیم راج ہے۔ یہاں اب تک بہت سے پرانے رواج ویسے ہی جاری ہیں جیسے قدیم آریوں کے وقت میں تھے۔ اوسکے بعض حصے ایسے زرخیز ہیں کہ وہاں سال میں تین فصلیں کٹی جاتی ہیں۔ یہاں کئی قوم کے لوگ رہتے ہیں۔ یہاں کے قدیم باشندے تاتاری اور چینی لوگ تھے۔ حکومت یہاں کی گورکھوں کے ہاتھ میں ہے۔ جو صورت میں چینئیونسی کچھ ملتے ہیں قد کے ناتے بد صورت اور لڑنے میں بڑے سپاہی ہیں۔ یہانکا خاندان شاہی اودیپور کے رانا کے نسلوں سے ہے اور اودیپور سے یہاں آکر بسے ہیں۔ محمد غوری نے جسوقت ہندوستان پر حملہ کیا اوسوقت اودیپور کے خاندان شاہی کے کوئی کوئی شاہزادگان راجپوتانہ سے کھاؤں کو جابسے اور کھاؤں سے پورب کے جانب آتے گئے اور وہانکے لوگوںسے شادی بیاہ کرتے ہوئے ایک جدی قوم ہو گئے اور فیپالی کہلانے لگے۔ کچھ دن ہوئے سرجنگ بہادر فیپال راج کے وزیر اعظم بڑے مشہور سیاست دان ہو گئے ہیں۔ یہ ولایت بیٹی گئے تھے اور سرکار انگریز کے بڑے دوست تھے۔ انہوں نے فیپال کی بہت کچھ ترقی کی۔ سن ستاون کے بلوے میں سرکار کی بہت مدد کی تھی \*

Translate from Hindi into English :—

(a) चीन देश में एक व्यापारी सचौटी के लिये बहुत प्रसिद्ध था। एक दिन किसी और देश का व्यापारी उसके घर आया और दो हजार रुपये की चांदी की ईंटे उसके पास घर कर अपने गांव को लौट गया। चीनी व्यापारी ने तीन बरस तक उसकी राह देखी। परन्तु जब वह न आया तब उसे बड़ी चिन्ता हुई और उसका पता लगाने के हेतु उसने अपना नौकर उसके गांव को भेजा। नौकर समाचार लाया कि वह तो मर गया पर उसके घर में उसकी स्त्री और पन्द्रह सोलह बरस का एक लड़का है। यह सुनते ही उस व्यापारी ने उसके लड़के को एक चिट्ठी लिख कर अपने घर बुलाया और उसे चांदी की ईंटे दिखा कर कहा यह धन तेरा है। तू लेजा। वह लड़का इस बात को सुन कर अचम्भे में आया और उस व्यापारी के मुंह की ओर देखने लगा। तब व्यापारी ने उस लड़के को सब बातें सुना कर सब धन उस लड़के को सौंप दिया ॥

(b) उत्तराखण्ड के राज्यों में नयपाल सब भांत स्वाधीन और बहुत पुराना राज्य है। यहां अब तक बहुत सी पुरानी रीतें वैसेही प्रचलित हैं जैसे पुराने आर्यों के समय में थीं। कोई २ प्रदेश इसके ऐसे उर्वरा हैं कि वहां साल में तीन फसल काटी जाती हैं। कई तरह के जाति के लोग यहां रहते हैं। प्राचीन निवासी यहां तातारी और चीनी लोग थे। राज्य प्रबन्ध यहां का गोरखों के हाथ में है। जो सूरत में चीनियों से थोड़ा बहुत मिलते हैं। कद के नाटे, बदन सूरत, पर लड़ने में बड़े सिपाही। नयपाल के राजवंश उदयपुर के राणा के वंश हैं। और उदयपुर से यहां आकर

वसे हैं। सहम्मद गौरी ने जिस समय हिन्दुस्तान का आक्रमण किया उस समय उदयपुर के राजवंश के कोई २ राजकुमार राजपूताने से पहले कुमाऊं जा वसे और कुमाऊं से पूरव के और आते गये। और वहां के लोगों से व्याह्र शादी करते हुये पृथक् जाति नयपाली इस नाम से कहलाने लगे। कुछ दिन हुये सर जङ्ग बहादुर नयपाल राज्य के प्रधान मंत्री बड़े नीतिज्ञ हो गये हैं। ये विलायत भी गये थे और सर्कार अङ्गरेज के बड़े मित्र थे। नयपाल की बहुत कुछ उन्नति इन्हीं ने कियी। सन् ५९ के बलवे में सर्कार की बड़ी सहायता कियी थी ॥

## MATHEMATICS.

(*Arithmetic and Algebra.*)

BABU SARAT CHANDRA MUKERJEE, M. A. }  
J. W. BACON, ESQ., M. A. } *Examiners.*

1. What is the largest number which divides both 2397 and 2491 without remainder? What is the smallest number which is divisible by both of these numbers.

2. State and prove the rule for pointing in multiplication of decimals. Why is removal of the decimal point one place to the right equivalent to multiplication by 10? Illustrate your answer by comparing the numbers 23.015 and 230.15.

Find the square root of .08027.

3. A person lent another a sum of money for 72 days at 3 per cent. per annum. At the end of that time he received £ 293-12s-0½d. What was the sum lent?

4. The compound interest on a sum of money for 3 years at 5 per cent. is £ 331-0s-3d.; what is the simple interest?

5. If a rupee is worth one shilling and three pence half-penny, and a shilling is worth 1.25 francs, what is the value in francs of 1,365 rupees?

6. Show that—

$(ay - bx)^2 + (bz - cy)^2 + (cx - az)^2 + (ax + by + cz)^4$   
is divisible by  $a^2 + b^2 + c^2$  and  $x^2 + y^2 + z^2$ .

7. Find the highest common factor of

$$4x^4 - 9x^2 + 6x - 1 \text{ and } 6x^3 - 7x^2 + 1.$$

8. Simplify the expression :—

$$(i) \frac{1}{a^2 - 3b^2 + 2ab} + \frac{1}{b^2 - 3a^2 + 2ab} - \frac{2}{3a^2 + 10ab + 3b^2}$$

$$(ii) \frac{a^4 + x^4 + ax(a^2 + x^2) + a^2x^2}{a^5 - x^5} \div \frac{a^2 + x^2 + ax}{a^3 - x^3}$$

9. A merchant buys goods at 24 guineas the cwt. and by retailing them at 5s. 3d. the lb. makes 10 per cent. more profit than if he had sold the whole for £240. What weight did he buy?

10. If  $a : b :: b : c :: c : d$ ; prove that  $a^2 : d^2 :: a^3 : c^3$ .

## GEOMETRY AND MENSURATION.

PT. SUDHAKAR DUBE,

C. H. DIXON, ESQ., M. A.,

... } *Examiners.*

1. Define a rhombus, a gnomon, the angle of a segment, an arc, a rectilinear figure, and a locus.

2. (A) If from the ends of the side of a triangle there be drawn two straight lines to a point within the triangle, these shall be less than the other two sides of the triangle, but shall contain a greater angle.

(B) A B C is a triangle and P is any point within it: shew that the sum of P A, P B, and P C, is less than the sum of the sides of the triangle.

3. (A) If a straight line be divided into any two parts, the rectangle contained by the whole and one of the parts, is equal to the rectangle contained by the two parts, together with the square on the aforesaid part.

(B) Divide a given straight line into parts such that the sum of their squares shall be equal to a given square.

4. (A) If a straight line touch a circle, the straight line drawn from the centre to the point of contact shall be perpendicular to the line touching the circle.

(B) Describe a circle which shall pass through a given point and touch a given straight line at a given point.

5. Describe a triangle equiangular to a given triangle about a given circle.

6. Find the locus of the middle point of all the equal chords of a circle.

7. In a right angled triangle, the difference of the sides is 21 feet, and the hypotenuse is 39 feet : find both these sides.

8. The sides of a quadrilateral inscribed in a circle, taken in order, are 25, 39, 60 and 52 feet ; find the area of the quadrilateral.

9. Assuming the circumference of a circle to be 31 times the diameter, find the circumference of the circle whose area is 1,386 sq. ft.

### ARABIC.—FIRST PAPER.

SHAMS-UL-ULMA MAULVI SYED ANJAD ALI, M.A. ... *Examiner.*

1. Translate into English :—

فلما سمع الخليفة من نعم هذه الابدات قال والله طيب  
والله مليح لله دورى يا نعم ما افصح لسانك و ما اوضح  
بيانك - ولم يزالوا في فرح و سرور الى نصف الليل - ثم  
قالت اخت الخليفة - اسبح يا امير المؤمنين - اني رايت  
حكاية في الكتب عن بعض ارباب الهرايب - قال الخليفة  
و ما تلك الحكاية - فقالت له اخته - اسبح يا امير المؤمنين -  
انه كان بهدينة الكوفة صبي يقال له نعمة بن الربيع و كان  
له جارية يحبها و تعبد - و كانت قد تربت معه في فرش واحد -  
فلما بلغا و تمكن حببها من بعضهما و ما هما الا كدهرين كئيبين و  
جار عليهما الزمان بافاته و حكم عليهما بالفراق و تحيلت عليهما  
الوشاة - حتي خرجت من داره و اخذوها سرقة من مكانه - ثم  
ان سارفيها باعها لبعض الهلوك بعشرة آلاف دينار - و كان  
عند الجارية لهولاءها من المحبة مثل ما عندها لها - ففارق  
مولاهما اهله و نعمته و داره و سافر في طلبها و تسبب في اجتماعه  
بها و خاطر بنفسه و بذل مهجته - حتي توصل الي اجتماعه  
بجاريته و كانت يقال لها نعم - فلما اجتمع بها لم يستقر بهما  
الجلوس حتي دخل عليهما الهلوك الذي كان اشتراها من الذي  
سرقها فمجل عليهما الهلوك و امر بقتلهما و لم ينصف من نفسه  
و لم يمهل عليهما في حكمه - فما تقول يا امير المؤمنين في  
قلة انصاف هذا الهلوك \*

2. In the above passage explain the expressions :—

والله ما لي به - الله ذكرك - ما أفصح لك -

and give their equivalent other Arabic expressions.

3. Translate the following and refer them to their authors :—

كل خليل كنت خالته \* لا ترك الله له وا ضحه  
فكلهم اروع من ثعلب \* ما شبه الليلة بالبارحه  
احسن الي الناس تستعبد قلوبهم \* وطالها استعبد الانسان احسان  
يا خادما الجسم كم تسعي لخدمته \* اطلب الربح فيها فيه خسروان  
اقبل علي النفس واستكمل فضايلها \* فانت بالنفس لا بالجسم انسان  
علي قدر اهل العزم قاتي العزائم \* وقاتي علي قدر الكريم الهكارم  
ويعظم في عين الصغار صغارها \* ويصغر في عين العظيم العظام

4. Translate into English explaining allusions :—

1. أنهض الي المعالي \* واجسرو لا تبالي

2. و خدس الزمان \* حظا فانت فان

3. من عشق المعالي \* لم يخف الليالي

4. اللهم العليه \* والههج الابهيه

5. تقرب الهية \* منك و الامنيه

6. وربها زال الغتي \* اضعاف ما كان رجا

7. ولا خطار عنتر \* بنفسه لم يذكر

8. الهجد بالخطاره \* والنصر بالهصا برة

5. Re-write the above extract with diacritical marks, and point out the falsity of rhyme in couplet 5.

6. Give the singulars or plurals, as the case may be, of the following :— خليل - دار - مولى - دينار - شاة - جارية - مدينة - ارباب - نصف -

نفس and خاد اخ



## ARABIC.—SECOND PAPER.

MAULVI MOHAMMED YUSUF JAFRI ... Examiner.

N. B.—Give vowel-points to every Arabic word you make use of in your answers.

## 1. Translate into Arabic:—

This world is the harvest for the next. To the wise a hint is enough. Assist your brother in distress. Contentment is the key of repose. You must read three pages of this book every day. When do you intend going to Persia? She does not mean to remain in this country after winter. Why have you not done what I told you? My master cannot come to see you to-morrow. At what hour yesterday morning did they march for Delhi? If you forget another time, then I will punish you severely. Give him two *dirhams* to buy a cap for me. Has your son written out the letter as I told him? Verily God does whatever He likes. Her daughter is more beautiful than your sister. I am going to the Mosque to make my Friday prayers. Handsome is your slave's daughter! I saw his father sitting under a tree. We all went together to her house. Respect thy parents.

## 2. Translate into English:—

طلب الكل فوت الكل - القرض مقرض الهبة - متاع الدنيا قليل - الهرع مع من احب - اذائتس الانسان طال لسانه - غني بلا سخاء كزهر بلا ماء - الانسان مركب من الجهل والخطاء - خذذ بالهوت حتي يرضي بالجهي - النقد خير من النسيئة - ان لم يكن وفاق ففراق - اذا تخاضها اللسان ظهر المسروق - الجاهل عدو نفسه فكيف يكون صديقي غيره - حبك الشئني يعنى ويصم - احسن ان اردت ان يحسن اليك - حب الدنيا والمال رأس كل خطيئة - الدال علي الخير كفاعله - ربها كان السكوت جوابا - الشيخ شاب في حب اثنين في حب طول الحيوه وكثرة المال - لا تؤخر عمل اليوم لغد - من طلب شيئاً و جد وجد - من كتم سره وجد مراده - يغوص البهر من طلب

اللاي - اعملوا ما شئتم انه بها تعملون بصير - اذا كان في  
الانسان عشر خصال تسعة منها صالحة وواحدة هي سوء  
الخلق افسدت هذه الصلة تلك التسعة - يوم واحد للعالم  
خير من الحيوة كلها للجاهل - ارحم من في الارض يرحمك  
من في السماء \*

3. Write down the Arabic cardinal numbers from one to fifteen, both, masculine and feminine.

4. Name the مفاعيل خمسة, and give an example of each.

5. Name the افعال ناقصة state their government, and give examples.

6. What kind of particles are نعم and بل and what is the difference in their uses?

### PERSIAN.—FIRST PAPER.

MUNSHI RAM KISHEN  
MAULVI ABDUL JALIL

... } Examiners.  
... }

1. Translate into English:—

(a) دو اميرزاده بودند در مصر - يکے علم آموختي  
و ديگري مال اندوخته - اين علامه عصر شد و آن عزيز مصر -  
پس تو نگهبان حقات دارن درويش نظر کرد و گفت  
بسلطنت رسيدم - تو همچنان در مسکنت بهاندي - گفت  
اي برادر شکر باري تعالي مرا مي بايد گفتن که ميرواث پيغمبران  
يافتيم يعني علم و تو ميرواث فراعون يعني ملک مصر \*

(b) ظاهراً کار ما از شما نيست - عارت بخود پر عارت  
است اين نهود بي بود خود آفتاب سرکوه است بدست آمد  
چه و قيامد چه - شما فکر خود کنيد که درينجا بهم چشمان  
چه رو خواهيد نهود \*

2. (a) What sort of يکے - آموختي - ديگري - بماندي is in ?

(b) Give the derivation and the plurals of ميرواث

(c) Write what you know of فرعون.

(d) Who is the author of the passage (b) and to whom was it written?

3. Explain in English and give the plurals of the words underlined:

(a) صاحب عیار گفت از برای ما عجب قطار شتر

آورده اگر کسی مهار شان بکشاید هر یک از گله دیگر گراید \*

(b) دو خاطر داشتند که عمارت عالی بسازند - چون عمر و فانکرد از قوه بفعل نیامده \*

(c) خواب و خور برای آنست که نیروی جستوی

ایزدی رضا فراهم آید - بیچاره آدمی بیدانشی مقصود پندارد \*

4. Relate in Persian the story of سنگ پست and بزم and give its moral.

5. Render the following extracts into English, refer them to their respective authors and mention the names of their principal works.

(a) مها زور مندی مکن بر کهان \* که بویک نهطاسی نهاند جهان  
سر پنجه ناتوان بر مپیچ \* که گردست یابد بر آید به پیچ  
مهر گفتیم پای مردم زجایی \* که عاجز شوی گرد آئی ز پای  
دل دوستان جیح بهتر که گنج \* خزینه تهی به که مردم برنج

(b) فلک کو دیر مهر و زود کین است

درین حر مانسرا کاروی این است

یکے را بر کشد چون خود بر افلاک

یکے را افکند چون سایه بر خاک

خوش آن دانا بهر کاری و باری

که از کارش نگیرد اعتباری

نه از اقبال او گردن فـرازد

نه از ادبار او جانش گسزارد

6. (a) What is the use of *و* in *پنجۀ* and in what different senses is it used in Persian? Give examples.

(b) Distinguish between *اسم موصول* and *صلة*; and *تشبيه* and *استعارة*; and illustrate your answer by examples.

7. Explain the following couplets in Persian:—

(a) ساقيا بزخيز و در ده جام را \* خاک بر سر کن غم ايام را  
ساغر مي در کفم نه تاز سر \* بر کشم اين دلق ازرق فام را  
(b) از هنرمندان گزين تو دوستي \* ز آنکه ياري را نشايدي هنر  
هر کس از ناکس طمع دارد وفا \* از درخت بيد مي جويد ثهو

8. Analyse according to Persian Grammar any one hemistich (*مصرعة*) in question 7.

Further write out the hemistiches in question 7 that contain no Arabic words, in a very clear hand.

#### PERSIAN.—SECOND PAPER.

MUNSHI M. AHMAD,  
MAULVI YAKUB ALI,

... } *Examiners.*  
...

I. (a) Translate literally into English:—

\* آغاز و انجام بسوے یزدان پاک است - و یآوری از اوست  
ستایش اورا سزا است \* هر آنکه از انجام آگاهی یافت بنده  
شد \* هر که یاری ازو دانست فروتن گشت \* کسیکه از داد  
و دهش وے آگاه شد به بندگی گردن نهاد - و از سر کشی چشم  
پوشید \* بهترین چیزیکه از خدا به بنده رسد دانش این  
جهان آموزش آن جهان است - خوشترین آرزوئیکه بنده از  
خدا دارد تندرستی است \* نیکو ترین سخنان ستایش یزدان  
پاک است \* تونگوي در بے فیازي است و آسایش در گوشه  
نشيني \* آزادي در گذشتن از خواهشهای زیان کار است -  
و راستي در دوست کاري - و بزرگواري در بیدخواهشي \*  
تونگري در خرسندي است - و درويشي در جستن تونگري \*  
پس توانگري درويشي جستني است \* و توانگري دينار

خستنی\* و دانا آنکه اول را بجوید و از ثانی دست بشوید\*

(b) Translate into English:—

بهرام گور و قتمے در هواے گرم بدر باغے رسید - پیریکه باغبانی کردے آنجا حاضر بود - گفت اے پیردرین باغ انار هست؟ گفت آری - بهرام فرمود که قدحے آب آنار بیار - پیرو برفت و فی الحال قدحے پر آب انار کردہ بیرون آورد و بدست بهرام داد - بیامید و گفت - اے پیرو سالے ازین باغ چند حاصل میکنی؟ گفت سه صد دینار - گفت بدیوان خراج میدهی؟ گفت بادشاه ما از درخت چیزے نهیگرد و از زراعت عشر میگیرد - بهرام باخود اندیشه کرد که در مملکت من باغ بسیار است و در هر باغے درخت بیشمار - اگر از حاصل باغ عشر بدیوان دهند مبلغے حاصل شود و رعیت را چندان زیانے فرسد - بعد از این بفرمایم تا خراج از محصول باغات نیز بگیرند - پس باغبان را گفت قدحے دیگر آب انار بیار - باغبان برفت و پس از مدتی قدحے آب آورد - بهرام گفت اے پیرو نوبت اول رفتی و زور آوردی و این نوبت انتظار بسیار دادی و برابر آن نیاوردی - پیرو ندانست که آن جوان بهرام است - گفت اے جوان گناه از من نبود - از بادشاه بود که درین وقت نیت خود را تغیر داده و اندیشه ظلم فرموده لاجرم برکت از میوه بیرون رفته - بهرام ازین سخن متأثر گشت و آن اندیشه از دل بیرون کرد\*

2. (a) Translate literally into Persian substituting appropriate and idiomatic equivalents for the italicized words or phrases:—

*It is related that about six hundred years ago, the King of England attacked Robert Bruce, ruler of Scotland with a large army and signally defeated him. Bruce concealed himself in a hut from fear of the enemy. There he flung him-*

*self down* in despair on a bed in a *sad mood*. He happened to look at the *ceiling* and noticed a spider fail six times in making a *web*; but it made a seventh attempt and succeeded. Bruce thereupon *resolved* to make another *attempt* and he *gained the object of his desire*.

(b) Translate into idiomatic Persian :—

To

THE PRINCIPAL,

*Dally College.*

DEAR SIR,

I have been a pupil in the Daly College under you for the last four years, and appeared for the Entrance Examination this year, but failed to pass. I am unable to continue at College any longer because of the expense, and must try to obtain some appointment by which I may be able to earn my own living. May I ask you kindly to give me a testimonial to help me in getting some such work?

I remain,

DEAR SIR,

Your Obedient pupil,

X. Y. Z.

(c) Translate into Persian in as clear hand as you can manage to write :—

A dog with a piece of flesh in his mouth was crossing a river, when he saw his own shadow reflected in the clear stream; and thought that it was another dog who had another piece of flesh in his mouth. Being overpowered by greed and avarice, he resolved to make himself master of that also; but in snapping at it he dropped the bit he was carrying, which was irrecoverably lost; hence the wise have remarked. Avarice is the root of all evil.

### SANSKRIT.—FIRST PAPER.

PT. ADITYA RAM BHATTACHARYA, M. A., ...*Examiner*.

1. Re-write the following in your own Sanskrit, using

words and construction as far as you can different from the text :—

अथ कदाचित् दीर्घकर्णो नाम सार्जारः पक्षिणावकान्  
भक्षयितुमागतः । ततस्तमायान्तं दृष्ट्वा पक्षिणावकैर्भयाकुलै-  
र्महान् कोलाहलः कृतः । तच्छ्रुत्वा जरद्भवेनाक्तम् । कोऽय-  
मायाति । दीर्घकर्णो गृध्रमवलोक्य सभयमाह । हा हतोऽस्मि ।

अथवा । तावद् भयस्य भेतव्यं यावद् भयमनागतम् ॥

आगतन्तु भयं वीक्ष्य प्रतिकुर्व्याद् यथोचितम् ॥

2. (a) Write a grammatical note on the use of the genitive case in भयस्य occurring in the verse quoted above.

(b) Conjugate the root of आह and of भेतव्यम् in लट् (present).

(c) State the rule of *Sandhi* in तच्छ्रुत्वा.

3. बुभुक्षितः किं न करोति पापम् ।

(a) Give in English the story from your text-book that the moral quoted above illustrates.

(b) Can you change the sentence into the Passive construction ?

(c) How do you form the word बुभुक्षितः ?

(d) Conjugate its root in लट् (present).

4. Explain :—

अपि सम्पूर्णाता युक्तैः कर्तव्याः सुहृदो वृधैः ।

नदीशः परिपूर्णोऽपि चन्द्रोदयमुदीक्षते ॥

5. Quote verses from the *chānakya-nīti-sār-sangraha* and the *Hitopadesa-sāra-sangraha* the last quarters of which are given below.

(a) चतुर्थे किं करिष्यति ।

(b) सतिमान् न प्रकाशयेत् ।

(c) यत्ने कृते यदि न सिध्यति कोऽत्र दोषः ।

(d) न बन्धुमध्ये धनहीनजीवनम् ।

6. उपाध्यायं पितरं मातरंच येऽभिद्रुह्यन्ते मनसा कर्मणा वा ।

(a) Write a grammatical note on अभिद्रुह्यन्ते.

(b) What should be the change in the case of the nouns governed by अभिद्रुह्यन्ते if you use the verb without the prefix.

(c) complete the verse by supplying the second half.

7. Translate into English :—

तास्यां पुण्यामयोध्यायां वेदवित् सर्वसङ्ग्रहः ।

दीर्घदर्शी महातेजाः पौरजानपदप्रियः ॥

बलवान् निहतामित्रो मित्रवान् विजितेन्द्रियः ।

धनैश्च सञ्जयैश्चान्यैः शक्रवैश्रवणोपमः ॥

यथा मनुर्महातेजा लोकस्य परिरक्षिता ।

तथा दशरथो राजा लोकस्य परिरक्षिता ॥

येन सत्याभिसन्धेन त्रिवर्गमनुतिष्ठता ।

पालिता सा पुरी श्रेष्ठा इन्द्रेणैवामरावती ॥

8. (a) Decline दीर्घदर्शी, महातेजाः, परिरक्षिता in the plural number of all the cases.

(b) Expound the *samāsa* of निहतामित्रो and शक्रवैश्रवणोपमः

(c) Re-write the last *shloka* after changing the construction from the passive into the active.

(d) Is there any final aim of life not denoted by त्रिवर्गः ?



## SANSKRIT.—SECOND PAPER.

PT. RAM SASTRI TAILANG

... Examiner.

## 1. Translate into Sanskrit :—

- (a) What is sweeter than honey ?  
 (b) This book was written by my pupil.  
 (c) The use of riches is to promote the happiness of others.  
 (d) A monarch should be the protector of his subjects.  
 (e) Be pleased to bestow on me your friendship.  
 (f) Having so said, he opened the door and went out.  
 (g) The report is that a tiger has killed a man.  
 (h) A king is the strength of the weak ; crying is the strength of children ; silence is the strength of the ignorant ; mercy is the strength of the righteous.

## 2. Translate into English :—

(1) सुखमापतितं सेव्यं दुःखमापतितं तथा ।  
 चक्रवत् परिवर्तन्ते दुःखानि च सुखानि च ॥

(2) पयःपानं भुजङ्गानां केवलं दिषवर्धनम् ।  
 उपदेशो हि सूखाणां प्रकोपाय न भ्रान्तये ॥

(3) आलस्यं हि ननुष्याणां शरीरस्यो सहान् रिपुः ।  
 नास्त्यद्यनसतो बन्धुः कृत्वा यं नावसीदति ॥

(4) यान्ति न्यायप्रवृत्तस्य तिर्दञ्जोऽपि सहायताम् ।  
 अपन्थानं तु गच्छन्तं सोदरोऽपि विमुञ्चति ॥

(5) अस्ति ब्रह्मारण्ये कर्पूरतिलको नाम हस्ती । तम-  
 वलोक्य सर्वे शृगालाश्चित्तयन्ति स्म 'यद्ययं केनाप्युपायेन  
 मृयते तदा अस्माकम् एतद्देहेन नासचतुष्टयस्य भोजनं भ-  
 विष्यति' । तत्रैकेन बृहशृगालेन प्रतिज्ञातं 'जया तुहिप्रभा-  
 वात् अस्य सरणं साधयितव्यम्' । अनन्तरं स वञ्चकः कर्पूर-  
 तिलकसमीपं गत्वा प्रणम्यावदत् 'देव दूष्टप्रसादं कुरु' ।  
 हस्ती ब्रूते 'को भवानु कुतो वा सनायातः' । सोऽवदत्

‘अम्बूको ऽहं सर्ववनवासिभिः पशुभिर्मिलित्वा भवत्सकाशं  
प्रस्थापितो यद् विना राज्ञा ऽवस्थातुं न युक्तं तदत्राटवीर-  
ज्ये ऽभिषेक्तुं भवान् सर्वस्वानिगुणोपेतो निरूपितः । तद्यथा  
लम्बवेला न विचलति तथा कृत्वा सत्वरम् आगम्यतां देवेन’  
इत्युक्त्वा गत्याय चलितः । ततो ऽसौ राज्यलोभाकृष्टः कपूर्-  
तिलकः शृगाल वर्त्मना धावन् सहापङ्के निनम्यः । ततस्तेन  
हस्तिनोक्तं ‘सखे शृगाल पश्य पङ्के निपतितो ऽहं स्त्रिये’ ।  
ततस्तेन शृगालेन विहस्योक्तं ‘सत्पुच्छावलम्बनं कृत्वोत्तिष्ठ ।  
यन्मद्वचसि त्वया प्रत्ययः कृतस्तदनुभूयतामशरणं दुःखम्’ ।

(6) लाभस्तेषां जयस्तेषां कुतस्तेषां पराभवः ।

येषामिन्दी वरश्यासो हृदयस्थो जनार्दनः ॥

## HISTORY.

M. CROSSE, ESQ., M.A.,  
MISS JESSIE RAIT, M.A.,

... } Examiners.

1. What are the chief events in the reign *either* of Henry III, *or* of Mary ?

2. Mention any two English kings who have laid claim to the throne of France. What war arose out of this claim of the kings of England ? What were the chief battles in it ? Give a short account of Joan d’Arc.

3. What were the causes and results of *any two* of the following wars :—

- (1) The Wars of the Roses.
- (2) The Civil war in the time of Charles I.
- (3) The War of the Spanish Succession.
- (4) The American War.

4. Give a short account of the career of Napoleon Bonaparte.

5. State what you know of the two most famous of Mahmud’s invasions of India.

6. Give a short account of the Emperor Akbers reign and policy.

7. Mention the chief events that occurred during the administration of Warren Hastings.

8. Answer *one only* of the following questions :—

(1) Sketch briefly the social progress of India under Lord Delhousie's rule.

or

(2) What are (a) The Viceroy's Executive Council, (b) The Viceroy's Legislative Council, (c) The Provincial Legislative Councils, (d) Municipalities. With regard to Municipalities' what are their duties, how are they constituted, and what Viceroy extended the elective principle?

9. Write notes on *any five* of the following :—

(1) The Subsidiary System, (2) Chand Bibi, (3) The Bahmani Kingdom, (4) The Character of Sivaji, (5) Magna Charta, (6) The people's Charter, (7) The Nore and Spithead Mutinies, (8) The fall of Walpole, (9) The Spanish Armada.

## GEOGRAPHY.

REV. G. M. BULLOCH,

F. G. HOUSDEN, ESQ., M.A.

... } *Examiners.*  
... }

1. What towns in the world have a population of one million or more each? Mention the six largest islands, and the four principal archipelagoes in the world.

2. Give an account of the different races of men in Europe, indicating the countries where they are found.

3. State where and what the following are :—

Dartmoor, Leipzig, Riga, Guiana, Tanganyika, Scaw Fell, Mekong, Zanzibar.

4. Draw a map of the Mediterranean Sea, with its principal islands, indicating the position of the chief towns on its shores, and the mouths of the rivers falling into it.

5. Mention in order the principal stations we would pass in travelling by rail from Peshawar to Madras. What rivers would you cross on the way?

6. Give an account of the chief ports of India, and its exports.

7. State what are the imperfections of maps drawn on the plain of Mercator's projection.

8. Describe the growth of a Delta, and the formation of the windings of a river.

9. Describe (1) A thermometer, (2) A barometer, and explain their uses. Why does ice float in water?

## GEOMETRICAL DRAWING.

G. T. SPARK, ESQ.,

... *Examiner.*

1. Construct a diagonal scale the representative fraction of which is  $\frac{1}{18000}$ , to read feet. Draw a line, and on it mark off a distance of 359 feet.

2. Show how you would set off an angle of  $22\frac{1}{2}^\circ$  without the aid of a protractor, scale of chords, or a right angle.

3. Construct a regular pentagon with  $1\frac{1}{2}$  inch side, and inscribe the (largest possible) square.

4. Construct a regular octagon of  $1\frac{1}{4}$  inch side, and inscribe half as many circles as figure has sides, each circle touching one side and two circles.

5. Construct a figure ABCDE, with following dimensions :—

AB = 1.75 inches

BC = 2.00 "

CD = 2.25 "

DE = 2.10 "

AF = 0.75 "

Angle ABC =  $120^\circ$

" BCD =  $75^\circ$

Also draw a similar figure one-half the size of given figure.

*N.B.*—All figures to be obtained by *Geometrical Construction* only. Sketches with theoretical explanations are not awarded marks.

## ELEMENTARY PHYSICS AND CHEMISTRY.

BABU G. N. CHAKRAVARTI, M.A.,

... *Examiner.*

1. Define 'force' and distinguish clearly between 'cohesion' and 'chemical affinity.' Give examples.

2. Describe the Syphon. What conditions must be observed in its construction so that the instrument may work, and why?

3. What are echoes due to? Devise an experiment to show the artificial production of echoes.

Describe an apparatus that would determine the number of vibrations in a unit of time corresponding to any note.

4. What are the two different ways in which solids and liquids are heated? Illustrate your answer by experiments.

5. Describe the Leydon jar and explain the principle on which it is worked. Also describe the discharging rod.

6. Distinguish clearly between 'energy of motion' and 'energy in repose.' Which of those two kinds of energy is present in a Leyden jar charged with electricity? In a flash of lightning is it electricity which you see? If not, what is it?

7. What are the two gases present in the air? Demonstrate your answer by means of experiments. Mention what would happen if a live mouse were put in a vessel containing one of these gases then the other.

8. What are the different forms in which carbon is known to exist in the free state? How would you prove that carbon is contained (1) in animal flesh, and (2) in vegetable matter?

9. Describe the experiment for decomposing water drawing a sketch of the apparatus used. Of the two gases obtained how would you know which is oxygen and which is hydrogen? Is there any other way in which hydrogen can be got from water?

10. Describe the experiment for determining the composition of water by weight.

11. What is meant by 'oxidation?' Give some familiar examples of oxidation. Find out the weights of mercury and oxygen present in 432 ounces of red oxide of mercury ( $\text{HgO}$ ) the combining weight of mercury being 200 and that of oxygen 16. How would you get metallic lead from "sugar of lead?"

12. How is cast-iron made and how does it differ chemically from wrought-iron? What are the important uses of cast-iron and wrought-iron respectively? How is steel made, and what are its chief properties? What is rust?

# BOOK-KEEPING.

BABU RAM KUMAR SARKAR

... *Examiner.*

1. Define the terms Dr. and Cr.
2. When is cash Dr. and when is Cash Cr., and when are Goods Dr. and when are Goods Cr.?
3. Name the most important of the Books used by a merchant in Book-keeping? and (2) the purpose for which each is used?
4. What is the difference between Book-keeping by single entry and Book-keeping by double entry?
5. Describe the mode of ascertaining the whole amount of Goods bought and sold by a merchant during the year, or any given time.
6. Describe the method of posting the Day-Book into the Ledger, when separate accounts are kept for some classes of goods but not for all.
7. What is the use of a Trial Balance-sheet? and (2) how is this Balance-sheet drawn out?
8. From which Account is the Profit, or the Loss on the transactions of a Firm for the year, or for any given time, ascertained.
9. How is the Profit and Loss account formed?
10. How is a Balance-sheet, to ascertain the state of affairs of a Firm at the end of the year, or at any convenient time, drawn out?
11. At the beginning of a year a set of Books is re-opened, and there are balance of the following accounts:—

Cash.  
Bills Receivable.  
Bills Payable.  
Goods.

On which side of the Ledger will each be put?

12. Enter the following transactions into their proper Accounts in the Day-Book, Invoice-Book, Cash-Book and Ledger:—

		Rs.	a.	p.
2nd June.	Goods sold on credit to Ram Lal	10	0	0
3rd "	Goods sold for cash to Mohamed Khan	...	5	0
4th "	Cash received from Bank	...	100	0
5th "	Goods bought on credit from Messrs. John and Co.	...	20	0
6th "	Paid rent of shop to Lachman Dass	...	50	0
7th "	Paid Municipal Tax	...	2	0
8th "	Paid salary of Chaukidar	...	5	0

### POLITICAL ECONOMY.

T. BECK, ESQ., B. A., ... *Examiner.*

1. What is wealth? Are air, land, rain, and canal water wealth or not, and why?

2. Distinguish between value and price. Explain what is meant by a general rise or fall of prices? Why cannot there be a general rise of values?

3. Why are gold and silver good materials for use as money? To what causes are the fall in the value of silver, as compared with gold due?

4. Explain the effect of demand and supply upon prices.

5. What law determines the value of the rent of a piece of land? How is the margin of cultivation affected by the price of agricultural produce?

6. What is Malthus's theory of population? What effect is the great increase in the population of India, likely to produce (1) on the total wealth of the country, (2) on the wealth of the individual ryot?

7. What elements constitute the profits of Capital?

8. Define credit. How does credit (1) effect an economy in the use of the precious metals, (2) encourage the productive employment of wealth?

## ENTRANCE AND SCHOOL-FINAL EXAMINATIONS, 1898.

## ENGLISH.—FIRST PAPER.

F. W. SUDMERSEN, ESQ., M. A.,	...	} <i>Examiners.</i>
J. C. KEMPSTER, ESQ.,	...	
C. H. LINTON, ESQ., M. A.	...	

1. Answer the questions in italics which follow these three extracts. You are not required to paraphrase them.

(a) It was a fine sunny morning when the thrilling cry of 'Land!' was given from the mast head. None but those who had experienced it can form an idea of the delicious throng of sensations which rush into an American's bosom, when he first comes in sight of Europe. There is a volume of associations with the very name. It is the land of promise, teeming with everything of which his childhood has heard, or on which his studious years have pondered.

*Who wrote the above extract and to what does it refer? Why is the cry said to be "thrilling"? What is meant by "a delicious throng of sensations," and why would an American especially feel those sensations? What Associations does the name recall? Why is Europe called "the land of promise" and why is it said to be "teeming with everything of which his childhood has heard?"*

(b) Schools, academies, and colleges give but the merest beginnings of culture in comparison with it. Far more influential is the life-education daily given in our homes, in the streets, behind counters, in workshops, at the loom and the plough, in counting-houses and manufactories and in the busy haunts of men.

*What is meant by 'culture' and explain why 'schools' academies, and colleges give but the merest beginnings of it? What is 'life-education,' where is it obtained and why is it 'more influential?' How do 'homes and streets' give us 'life-education?' What various occupations are referred to or suggested by 'in workshops, at the loom and the plough, counting-houses and manufactures?'*



- (c) In the world's broad field of battle,  
 In the bivouac of Life,  
 Be not like dumb, driven cattle !  
 Be a hero in the strife !

*Why is the world called a 'broad field of battle' and 'Life,' bivouac !' What kind of men would you compare to 'dumb, driven cattle ?' What figures of speech are employed in this verse ?*

2. Write the following in simple prose so as to describe the scene here depicted in your own words. You are not required to closely follow the original, and a mere substitution of other words or phrases will not be accepted.

His house was known to all the vagrant train,  
 He chid their wanderings, but relieved their pain ;  
 The long remember'd beggar was his guest,  
 Whose beard descending swept his aged breast ;  
 The ruin'd spendthrift now no longer proud,  
 Claim'd kindred there, and had his claims allow'd ;  
 The broken soldier, kindly bade to stay,  
 Sat by his fire, and talk'd the night away ;  
 Wept o'er his wounds, or, tales of sorrow done,  
 Shoulder'd his crutch, and show'd how fields were won.

3. Narrate the story entitled "An Incident of the French Camp" by Robert Browning in your own words.

4. Answer the questions in italics following these two extracts.

- (a) As some tall eliff, that lifts its awful form,  
 Swells from the vale, and midway leaves the storm,  
 Though round its breast the rolling elouds are spread,  
 Eternal sunshine settles on its head.

*Of whom is this simile an illustration ? Show carefully and in detail that it is suitable to the person of whom it is used.*

- (b) When I remember all  
 The friends so link'd together  
 I've seen around me fall  
 Like leaves in wintry weather,  
 I feel like one  
 Who treads alone  
 Some banquet hall deserted,  
 Whose lights are fled,  
 Whose garlands dead,  
 And all but he departed!

*There are two similes employed here. What are they? Show by careful comparison the appropriateness of each.*

(c) Ximenes, though possessed only of delegated power, which, from his advanced age he could not expect to enjoy long, assumed, together with the character of Regent, all the ideas natural to a monarch, and adopted schemes for extending the regal authority.

*What is meant by 'delegate power' and how is Ximenes here said to have acted when he received this power? What 'ideas' are 'natural to a monarch?' Mention any of the schemes, which Ximenes adopted for 'extending the regal authority?'*

5. Explain the following extracts and answer the questions in italics.

(a) Some of God's greatest apostles have come from the 'ranks.'

*What does the word 'ranks' usually mean and what does it mean in this case? Mention any of God's apostles who 'have come from the ranks.'*

- (b) Perhaps in this neglected spot, is laid  
 Some heart once pregnant with celestial fire;  
 Hands that the rod of empire might have swayed,  
 Or waked to ecstasy the living lyre:

*What three classes of men are referred to in the last three lines of this verse?*

6. Passages from books not prescribed.

You are required to re-write the following passages so as to bring out their meaning fully and clearly, adding anything which would make the meaning clearer and show that you fully understand the passages.

- (a) Under a spreading chestnut tree  
 The Village smithy stands;  
 The smith, a mighty man is he,  
 With large and sinewy hands;  
 And the muscles of his brawny arms  
 Are strong as iron bands.  
 His hair is crisp, and black, and long,  
 His face is like the tan;  
 His brow is wet with honest sweat,  
 He earns whate'er he can,  
 And looks the whole world in the face,  
 For he owes not any man.  
 Toiling,—rejoicing,—sorrowing,  
 Onward through life he goes  
 Each morning sees some task begin  
 Each evening sees it close;  
 Something attempted, something done,  
 Has earned a night's repose.

(b) The elephant is not used in the present day in India as an engine of war, but as a beast of burden, in the transport of baggage, tents and various stores; and there are peculiar circumstances in the march of an Indian army which render the elephant extremely serviceable. Where dense jungles offer impediments which the pioneers could not obviate without great labour and consequent delay, three or four elephants clear the way at once; trampling down the long grass and bushes, and breaking down the slender or trees, in short travelling all, before them, again, where the artillery has to be dragged through heavy roads of clay and mire, their strength and sagacity are in great requisition. They always apply their force in the most efficacious manner, and assist each other with wonderful sagacity.

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## ENGLISH.—SECOND PAPER.

A. MEFF, ESQ., M. A.,	...	} <i>Examiners.</i>
W. K. BONNAUD, ESQ.,	...	
MISS BALLEY.	...	

1. *Explain the following expressions :—*

- (a) He was too impulsive not to have committed many mistakes ?
- (b) The police got wind of the affair.
- (c) The regiment deserted to a man.
- (d) He fell in with his views.
- (e) To pay off old scores.
- (f) He rose to the occasion.
- (g) He always stood in his own light.
- (h) They will stand by us at a pinch.
- (i) He knew what was in the wind.
- (j) It's all one.
- (k) The remark stung me to the quick.

2. *Supply the missing prepositions in :—*

(a) I sympathise——him ; (b) to be opposed——the plan ;  
 (c) he differed——me ; (d) I rejoice——your success ; (e) he  
 was unworthy——your friendship ; (f) he was shocked——  
 his behaviour ; (g) James I confided too much——favouri-  
 ties ; (h) Akbar always inclined——mercy ; (i) he was well-  
 disposed——the Government ; (j) to be displeased——the  
 answer.

3. *Analyse :—*

- (a) If all the year were playing holidays,  
To sport would be as tedious as to work.
- (b) I ask again "What's the matter?"
- (c) If wishes were horses, beggars would ride.
- (d) It is better that ten guilty men should go un-  
punished than that one innocent man should be  
condemned.
- (e) He looked as if he were ill.
- (f) Far be it from me to contend that you are wrong.

4. *Parse the words in thick type :—*

- (a) Let me die the death of the righteous.
- (b) He failed, his industry notwithstanding.
- (c) Forgive me this my virtue.
- (d) How do you do ?
- (e) Wait till then.

5. *Reverse the meaning of these words by adding pre-fixes or suffixes :—*

- (a) Respectful; (b) orthodox; (c) mature; (d) ordinary.

6. A man on falling into a well exclaimed, "Nobody shall save me and I will be drowned."

*What precisely does this remark mean and how would you amend it ?*

7. *Put into Indirect speech :—*

Going along the street, I met Mr. Green, I asked—"Will you come to dinner to-night?" "I would, if I could," he replied "but my doctor declares that, in this weather, I may catch cold. Please excuse me, this time."

8. *Give adjectives derived from (a) satisfy (b) compassion.*

*Give nouns meaning* (c) one who drinks to excess.

(d) one who plays the piano.

(e) a little prince.

(f) a little goose.

*Form verbs connected with (g) sympathy (h) food.*

*Give past participles of* (i) run (j) seethe.

9. *Distinguish carefully between the following pairs of words stating what each means :—*

- (a) Sensitive, sensible.
- (b) Human, humane.
- (c) Pertinent, impertinent.
- (d) Lawless, unlawful.
- (e) Artful, artistic.
- (f) Observance, observation.
- (g) To ignore, to be ignorant.
- (h) Politic, political.
- (i) Ingenuous, ingenious.
- (j) Contemn, condemn.

## URDU.—THIRD PAPER.

DR. G. THIBAUT SET THE PAPER.

C. DODD, ESQ. ....	...	...	} <i>Examiners.</i>
REV. E. S. OAKLEY	...	...	

Translate from Urdu into English:—

A.

بھولا نام کا ایک بہت غریب آدمی تھا — اوسکے چہرے چھوٹے چھوٹے لڑکے تھے۔ اوسکو اس بات کا بڑا اندیشہ ہوا کہ اونکی پرورش کیونکر ہوگی۔ اس اندیشہ کا ایک اور بڑا سبب یہ تھا کہ اوس سال اناج کی پیدایش بہت کم ہوئی پہلے سال کے بہ نسبت اناج دوڑا مہنگا ہوا تھا۔ بھولا رات دن مزدوری کرتا تھا تو بھی اتنے پیسے نہ ملتے تھے کہ لڑکوں کو سوکھی روکھی روٹی بھی ملے۔ اس سبب سے وہ بڑی تکلیف میں تھا۔ ایک دن اوسنے اپنے سب لڑکوں کو پاس بلا کے آنکھوں میں آنسو بھر کر کہا۔ اے میرے پیارے بچو اس سال بڑی مہنگی ہے میں اتنی محنت اوتھاتا ہوں تو بھی تمہارے پیٹ بھرنے قابل اناج نہیں ملتا۔ تم دیکھتے ہو کہ میری دن بھر کی محنت سے ایک روٹی ملتی ہے۔ سو جو مجھکو ملتی ہے۔ اوسی سے تمکو اپنا نباہ کرنا ہوگا۔ دوسری کوئی تدبیر نہیں ہے۔ ہم جانتے ہیں کہ اتنے میں تمہارا پیٹ نہ بھریگا۔ مگر جان بچاؤ کس قدر سہارا ہوگا۔ یہ کہہ کر وہ چپ ہو گیا۔ آگے اوس بیچارے سے بولا نجاسکا وہ اوپر خدا کے طرف دیکھ کر رونے لگا۔ اوسے دیکھ اوسکے لڑکے بھی رونے لگے۔ ”اے خدا اے غریب پرور ہم غریب اور بد قسمت ہیں ہمیں سہارا دے۔ ہماری باپ کی مدد کرو اور ہمکو بھوکوں سے مت مارو۔ بھولا نے اس روٹی کے سات تکرے کر کے اپنے لڑکوں کو بانٹ دئے اور اونہیں سے سب سے چھوٹا تکرہ اپنے لئے لیا“ \*

## B.

نیوٹن بڑا ٹیکبخت آدمی تھا۔ باوجود اتنے بڑے عالم  
 ہونی کے اوس میں ذرہ برابر تکبر نہ تھا۔ اوس کی طبیعت  
 ایسی نرم تھی کہ اوسے غصہ کبھی آتا ہی نہ تھا۔ اوس کے  
 پاس ایک پیارا چھوٹا سا کتا تھا۔ ایک دن رات کے وقت  
 نیوٹن کہیں باہر گیا تھا۔ اور اوسکے کمرے میں میز پر بٹی  
 جل رہی تھی۔ اتنے میں کتے کے جی میں نہ جانے کیا آیا  
 کہ وہ یک بیک ایسے زور سے میز پر اوچھل پڑا کہ جلتی  
 ہوئی بٹی گر پڑی اور سب کاغذ جٹکوا لکھ کر تیار کرنے میں  
 نیوٹن نے کئی سال لگائے تھے جل کر خاک ہو گئے۔ نیوٹن  
 جب لوٹ کر آیا تب یہ حال دیکھ کر دل میں بڑا رنجیدہ  
 ہوا۔ لیکن غصہ میں آکر کتے کو کچھ سزا نہیں دی صرف  
 اتنا ہی کہہ کر رہ گیا کہ اے کتے تجھ سے جو میرا نقصان ہوا ہے  
 اوسکی تجھ کو کیا خبر ہے \*

Translate from Hindi into English:—

भोला नाम का एक बहुत गरीब मनुष्य था। उसके  
 छः छोटे २ लड़के थे। उनका पालन पोषण कैसे हो इस  
 बात की उसे बड़ी चिन्ता पड़ी। उस चिन्ता का और भी  
 एक बड़ा कारण यह था कि उस साल अनाज बहुत कम हुई  
 थी। पहिले साल की अपेक्षा अनाज दूना महंगा हो गया था।  
 भोला रात दिन सज़दूरी करता था तो भी इतने पैसे न  
 मिलते थे कि लड़कों को सूखी रूखी रोटी भी मिले। इस  
 कारण वह बड़े लेश में था। एक दिन उसने अपने सब  
 लड़कों को पास बुलाकर आंखों में आंसू भर कर कहा  
 “हे मेरे प्यारे बच्चे ! इस साल बड़ी महंगी है मैं इतनी  
 मेहनत चढ़ाता हूं तो भी तुम्हारे पेट भरने योग्य अनाज

नहीं मिलता । तुम देखते हो कि दिन भर की मेरी मिहनत से एक रोटी मिलती है । सो जो मुझ को मिलती है उसी से तुमको अपना निर्वाह करना होगा दूसरा कुछ उपाय नहीं है । हम जानते हैं कि उतने में तो तुम्हारा पेट न भरेगा परन्तु प्राणधारण किसी क्रूर होवेगा । यह कह कर वह चुप हो गया । आगे उस विचारे से बोला न गया । वह ऊपर भगवान् की ओर दृष्टि करके रोने लगा । उसे देख उसके लड़के भी रोने लगे” हे भगवान् हे दीनदयाल हम दरिद्री अभागी और असमर्थ हैं हम पर दया कर हमको भूखी मत सार । भोला ने फिर इस रोटी के सात टुकड़े किये और अपने लड़कों को बांट कर उनमें से सब से छोटा टुकड़ा अपने लिये लिया ॥

निउटन परम सुशील था । इतना भारी विद्वान् होने पर भी उसमें गर्व का लेश नहीं था । उसका स्वभाव इतना शान्त था कि उसे क्रोध तो कभी नहीं आता था । उसके पास एक प्यारा छोटा सा कुत्ता था । एक दिन रात्रि के समय निउटन कहीं बाहर गया था और उसके कमरे में मेज पर बत्ती जल रही थी । इतने में कुत्ते के मन में न जाने क्या आया कि बस एका एकी ऐसे जोर से मेज पर उछल पड़ा कि बत्ती गिर पड़ी और सब कागज जिनको लिख कर तय्यार करने में निउटन ने कई वर्ष लगाये थे जल कर भस्म हो गये । निउटन जब लौट कर आया तब वह हाल देख कर मन में बड़ा दुःखित हुआ । पर गुस्से में आकर कुत्ते को कुछ सज़ा नहीं दी किन्तु इतना ही कह के रह गया कि “ऐ कुत्ते तुझ से जो भेरा नुक़सान हुआ उसकी तुझ को क्या ख़बर है” ॥



## MATHEMATICS.

*(Arithmetic and Algebra.)*

BABU UMESH CHANDRA GHOSH, M.A. ... }  
 C. H. DIXON, ESQ., M.A., ... } *Examiners.*

1. Define Measure of a number and find the *g. c. m.* of:—

(i) Rs. 2, 4 as. and 10 as. (ii)  $\frac{3}{4}$  and  $\frac{5}{8}$ .

Find the greatest number which will divide 13956 and 14565 and leave a remainder 7 in each case.

2. Simplify:—

$$(a) \frac{(\frac{1}{2})^2 + (\frac{1}{3})^3}{(\frac{1}{3})^2 + (\frac{1}{2})^3} + \frac{1.25 \text{ of Rs. 5, 10 as. 8 pies}}{.037 \text{ of Rs. 7, 12 as.}}$$

$$(b) \frac{1}{2} - \frac{1}{2} \div \frac{1}{3} \text{ of } \frac{1}{4} \div \frac{1}{5} \times \frac{1}{6}.$$

3. Extract the square root of

$$9 + \frac{1}{1 + \frac{1}{1 + \frac{1}{7 + \frac{1}{6}}}}$$

and calculate the difference between this square root and  $8 + \frac{1}{16} \sqrt{2}$  to three places of decimals.

4. Find the cost in English money of travelling from Vienna to Trieste, a distance of 363 English miles, the average cost per German mile being 13 kreutzers. Given that  
 1 German mile =  $4\frac{1}{2}$  English miles,  
 £ 1 = 25.5 francs,  
 3.75 francs = 105 kreutzers.

5. What is the present value of a legacy of £ 149, 1s. 3d. due 7 years hence, at  $2\frac{2}{3}$  per cent. simple interest.

6. Find the G. C. M. of  $2x^5 - 11x^2 - 9$  and  $4x^5 + 11x^4 + 81$ .

7. Simplify:—

$$(a) \frac{m-n}{(x-m)(x-n)} + \frac{n-p}{(x-n)(x-p)} + \frac{p-m}{(x-p)(x-m)}$$

$$(b) \frac{a^2}{(x-a)n} + \frac{2a}{(x-a)n-1} + \frac{1}{(x-a)n-2}.$$

8. Solve:—

$$(a) \quad 2x + \frac{3}{y} = 4$$

$$3x + \frac{2}{y} = 5.$$

$$(b) \quad \frac{1}{x+5} + \frac{1}{x+10} = \frac{2}{x}.$$

9. If  $a : b = c : d$ , prove that

$$a(a+b+c+d) = (a+b)(a+c).$$

10. The number of months in the age of a man, on his birth-day in the year 1875, was exactly half of the number denoting the year in which he was born. In what year was he born?

### EUCLID AND MENSURATION.

A. E. PIERPOINT ESQ., M. A., B. Sc.

BABU G. N. CHAKRAVARTI, M. A.

} *Examiners.*

1. State axiom 12 and prove its converse.

2. Prove that the straight line which joins the middle points of the sides of a triangle is parallel to the third side.

3. Describe a parallelogram that shall be equal to a given rectilineal figure and have one of its angles equal to a given rectilineal angle.

4. Divide a given straight line into two parts so that the rectangle contained by the whole and one part may be equal to the square on the other part.

5. Define similar segments of circles and prove that on the same chord and on the same side of it there cannot be two similar segments of circles not coinciding with one another.

6. In two concentric circles any chord of the outer circle which is also a tangent of the inner circle is bisected at the point of tangency.

7. In a given circle inscribe a triangle equiangular to a given triangle.

8.  $ABCDE$  is a regular pentagon and  $AC, BE$  intersect at  $H$ . Shew that  $AB=CH$ .

9. A room whose length is 30 feet and breadth twice its height takes 144 yards of paper 2 feet wide for its four walls: find the area of the floor.

10. The sides of triangle are 25, 39, 56 feet respectively: find the perpendicular from the opposite angle on the side of 56 feet.

11. Give a practical method by means of Geometry for ascertaining the distance of an inaccessible object  $A$  from a given position  $B$ . Illustrate your meaning by a diagram.

12. Make a sketch of a field from the accompanying notes and work out its area :—

	Links.	
	⊙ A	
0	500	
H 20	320	
G 30	140	
	0	0
turn	⊙ C	
	to the	right.
	⊙ C	
	400	0
	180	20 F
	0	0
From	⊙ B	go North East.
	⊙ B	
0	300	
E 12	200	
D 10	90	
	0	0
From	⊙ A	go North West.

## ARABIC.—FIRST PAPER.

MAULVI MOHAMMED YUSU JAFRI

... Examiner.

N.B.—Give vowel-points to every Arabic word you write in your answers.)

1, Translate into English :—

ثم قال للمربيع اخرج من مالك اربعة آلات دينار فاخرجها وسلمها الا عجمي - فقال له الا عجمي اريد ان ولدك يسافر الي دمشق - وان شاء الله تعالى لا ارجع الا بالجارية - ثم التفت العجمي الي الشاب و قال له ما اسمك - قال نعمة - قال يا نعمة اجلس انت و كن في امان الله تعالى - لقد جمع الله بينك و بين جاريتك - فاستوي جالسا - ثم قال له شد قلبك - فذهبن نسافر في مثل هذا اليوم - فكل واشرب وانبسط لتقوي علي السفر - ثم ان الا عجمي اخذ في قضاء حوائجه من جميع ما يحتاج اليه من التحف واستكمل من والد نعمة عشرة آلات دينار - واخذ منه الخيل والجمال و غير ذلك مما يحتاج اليه لحمل الا ثقال في الطريق \*

(a) Re-write the above extract from the beginning to تعالى with vowel-marks,

(b) Name the باب, مادة, and صيغة of تعالى, explaining the changes the word has undergone, and give its construction in the sentence انشاء الله تعالى.

2. Translate the following into English, explaining the grammatical pun contained therein :—

جاء نحوي علي باب نحوي فدنق بابه - فقال من انت - فقال الزائر احمد - فاجاب صاحب الدار انصرف - فقال احمد لا ينصرف - فاجاب اذا كان ذكرا ينصرف \*

3. Give the singular or plural (as the case may be) of :—

ولد, دينار, طريق, اثقال, جمال, خيل, تحف, حوائج, يوم, قلب, اسم, شاب, جارية.

4. Translate into English :—

- (a) كذا كزوج حهامة في ايكمة \* متبعين لصحة وشباب  
دخل الزمان بذا و فرق بيننا \* ان الزمان مفرق الاحباب
- (b) مالي وقفت علي القبور مسلما \* قبرا الحبيب فلم يرد جوابي  
احبيب مالي لا ترد جوابنا \* انيست بعدي حلة الاحباب
- (c) انبا الدنيا فناء ليس في الدنيا ثبوت  
انبا الدنيا كبيت نسجته العنكبوت  
و لقد يكفيك منها ايها الطالب قوت  
و لعمري عن قليل كل من فيها يهوت

5. Name the author of the above verses, and write shortly what you know of him.

6. Translate into English, and explain the allusions contained therein :—

اذا قربت ساعة يا لها \* وزالت الارض زوالها  
تسير الجبال علي سرعة \* كهر السحاب تربي حالها  
وتنفطر الارض من نفخة \* هناك تخرج اثقالها  
ولا بد من سائل قائل \* من الناس يومئذ مالها  
تحدث اخبارها ربها \* و ربك لاشك اوحى لها  
و يصدر كل الي موقف \* يقيم الكهول واطفالها  
تري النفس ما عيلت محضرا \* و لو ذرة كان مثقالها  
يحا سبها مالك قادر \* فاما عليها و اما لها

7. Give the تركيب of the 7th couplet in the above question.

### ARABIC.—SECOND PAPER.

SHAMS-UL-ULAMA MAULVI SYED AMJAD ALI, M.A.... Examiner.

N.B.—Give vowel marks to every Arabic word you write in your answer papers.)

1. Translate into English :—

ان ابا حسان الزبادي قال ضاق علي الحال في بعض الايام

ضيقا شديدا حتي انه قد ألح علي البقال و الخباز و سائر  
 العاملين فاشتد علي الكرب ولم يجد لي حيلة فبينما انا  
 في تلك الحالة لا ادري كيف اصنع ان تدخل علي غلام لي  
 فقال ان بالباب رجلا حاجا يطلب الدخول عليك فقلت انذن  
 له فدخل فاذا هو رجل خراساني فسلم علي فرددت عليه السلام  
 ثم قال لي هل انت ابو حسان الزبدي فقلت نعم و ما حاجتك  
 قال اني رجل غريب واريد الحج و معي جملة من المال و انه  
 قد اثقلني حمليه \*

حكى ان امرة كان لها زوج منافق و كانت تقول علي كل  
 شئ من قول او فعل بسم الله فقال زوجها لا فعلن ما اخجلها  
 به فدفع اليها صرة و قال لها احفظيها في محل و غطتها فغافلها  
 و اخذ الصرة و اخذ ما فيها و رماها في بئر قري داره ثم طلبها  
 منها فبجاعت الي محلها و قالت بسم الله فامر الله جبريل ان  
 ينزل سريعا و يعيد الصرة الي مكانها فوضعت يدها لما اخذها  
 فوجدتها كلها و ضعتها فتعجب زوجها و تاب الي الله \*

## 2. Translate into Arabic :—

When was she born, and how old is she now ?

I am very sorry to see you in this wretched state.

Kindly inform me of what you saw there.

He asked me to put all these things in a box.

When I heard this I was greatly surprised.

They all began to weep bitterly on seeing me.

This is a very sad story. Please sit down.

He has married his daughter to his friend.

When will the marriage of your son be celebrated ?

Having heard the news of his arrival, he went out to receive him,

Owing to my falling ill, I was obliged to go home.

He was poisoned.

He was not killed but wounded severely.

He suffered great loss in trade. He loved his subjects,  
 and was likewise loved by them.

3. Distinguish clearly between معرب and مبني and give their examples from your Arabic text or otherwise.

4. In what cases is a غير منصرف taken as منصرف? Give examples.

5. Point out the changes that the following words have undergone.

بعث - قال - داع - منقاد - مبيع - سيد - ديوان - ق - يذوب

6. Write down some plural forms and give their instances.

### PERSIAN.—FIRST PAPER.

SHEIKH BAHADUR ALI, M.A. ... }  
SHAMS-ULAMA MAULVI ABDUL JALIL. ... } *Examiners.*

1. Translate into English :—

(a) جوہر اگر در خلاص افتد همان نفیس ست و غبار اگر بر فلک رود همان خسیس - استعداد بی تربیت دریغست و تربیت نا مستعد ضایع - خاکستر نسبت عالی دارد کہ آتش جوہر علوی است - ولیکن چون بنفس خود هنری ندارد با خاک برابر است \*

(b) زیر دستان را باندازہ ایشان باز خواست نہا - باہر کسی باندازہ پایہ اور رفتار فرما \*

(c) برسست پیدہانان استوار مباش و بر استواران سستی منها - بیشرمی ازان بتر نبود کسی کہ چیزی نداند بخود بندد - آنچه نہ نہادہ بر مدار - کوتاہ دست باش تا زبانت دراز باشد \*

2. Whose speeches are contained in (b) and (c) Criticize any one of them.

What is the subject and object of مدار بر in مدار بر آنچه نہ نہادہ?

3. Give meaning of the following extracts, in Persian and break each into separate clauses :—

(a) از انجا کہ دہگي نیت حق طویت مصروف آنست

که جمیع سیاست بروفق شریعت غرا باجرا رسد و تهاامي احکام بر طبق دین متین بامضا - در مہلکتی باین فسحت کہ سه طرف آن دریای شور پیوسته است قنومندے براہ مطاولت و مصاولت فائزانه نشتابد \*

چون خاطر خورشید مآثر اہنیہ رفیعہ و امکانہ منیعہ (b) کہ روزگار از علوہمت و سمو دولت خداوندیش بزبان بی زبانی در گفتارند و اعضاء دیویاز از آباد گیری و زینت گستری و نزاہت پروری نامش یادگار توجہ تام است اکثر منازل را بنفس طرح میفرمایند \*

4. (a) Give meaning, roots, and opposites, of the following words:—

مطاولت - اہنیہ - نفیس - حلی - قیلوکہ - آماني

- (b) Give meanings of the following:—

قور - انہودج - صاحب رسالہ - ران - مودی

کنگاش - کنج کاوی - پالہنگ - بویزہ - موبد

- (c) Write what you know of ناصر خسرو - چوبین - مقلہ - ہورام چوبین - ناصر خسرو and کوشیار

5. Translate the following into English:—

(a) گرانی کہ دشمنست گوید مرنج

وگرنیستی گو برو بان سنج

وگر اہل بی مشک را گندہ گفت

تو مجھووع شو کو پراگندہ گفت

وگر میروود در پیہاز این سخن

چنین است گو گندہ مخزی مکن

(b) چون خون زحلق تشنہ او بر زمین رسید

جوش از زمین بدروغ عرش برین رسید

(c) سر خدا کہ عارت و سالک بہ کس نگفت

در حیرتم کہ بادہ فروش از کجا شنید



(d) آن قصـر که بهـرام درو جام گرفت  
رو به بچه کرد و شیر آرام گرفت  
بهـرام که گور میگر فتنه دائم  
امروز نگر که گور بهـرام گرفت

6. Explain allusions in extracts (b), (c) and (d), and name their authors respectively.

7. Explain in *Persian* the following verses:—

تو آنکه که بر من شوی فتعیاب  
زن بیوه را داده باشی جواب  
من اربا تو چریم به آهنگام کین  
شرم قایم انداز روی زمین  
سام که سید مرغ پسر گیر داشت  
بود جوان گرچه پسر پیر داشت

8. Give meaning of the following words and phrases:—

خفوق - سبل - شب کوک - کالیوه - سخبه - قایم انداز - آهنگ  
رقاق دو پرویزی - فقاغ گلابی - مرد سنگ از ما - پیغاره - نوبتی

9. Explain the formation of the following words and give their meaning, stating to what part of speech each belongs:—

جاروب - گردون کمند - همگنان کشتی - کنخدا - خرابست - گفتگو

10. (a) Illustrate by examples the transitive as well as intransitive use of *ریختن* and *آمرختن*

(b) Analyse fully according to Persian Grammar the following couplet:—

مریز اے حکیم آستینهای در  
کجا بینی از خوبشتن خواجه پر

## PERSIAN.—SECOND PAPER.

MAULVI SYED ABDULLAH ...

MAULVI YAKUB ALI ...

... } Examiners.

1. Translate into English :—

در پانزدهمین سنه ۸۴۰ هجری امیرزاده..... را هوش شکار دامنگیر شده بعزم این کار بر سهمنه باد رفتار سوار شد و در صحرای درجواز مزار محمد نخبهپیران شکاری فراوان بهمیرسید و در اثناء تگ و تاز شاهزاده گردن فراز بقوچی باز خورده از فراز زین دو تا گشته خواست که قوچ را زنده بدست گیرد ناگاه از قضای آسمانی و حکم ربانی بسرو گردن بر زمین افتاد و بعضی گفته اند که قوچ را گرفته بقربوس زین رسانید و آن صید طپیده و اسب رمیده شاهزاده از بالای زین بر زمین افتاد و بهر تقدیر از شدت آن صدمه بیهوش شد ازین واقعه عظمی خروش از فهاد مردم برآمد و امراء واعیان بدالین شاهزاده آمدند و قلق و اضطراب آغاز نهوده - تا بعد از اندک زمانی بر خود جنبیده فی الجمله اثر حیات از او مشاهده افتاد و مدت سه شبانروز چند نوبت غش برداشت پسندیده صفات او طاری گشت - از طبیبی که متصدی معالجه او میبود بسو یا بقصد یا بعهد یا باغواهی جمعی در تدایق تقصیر واقع شد و خللی فاحش بدماغ شاهزاده خوردند و راه یافت - اکثر اوقات حکم او بر نهی صادر میشد که پسندیده عقلا و لایق مرتبه سلطنت نمیبود گاه بهجود خیال به خون بیگناه فرمان میداد و گاه از طریق اسراف گنجی برای گدای میبهد \*

۲ - داد خواهی پیش پادشاه آمد و عرض حال کرد بحالش نپرداخت باز گفت روی توجه نیافت زار نالید و تکرار بیحد کرد ملک بهم آمد و گفت خانه خواب دود سر را از پیشم نهی بزی گفت خانه خود بر باد رفت سر توئی درد کجا

برم ملک را حرفش موثر آمد بدادش رسید و از ستمگارش انتقام کشید \*

۳ - اکبر جامع اوصافه بود که عقل در آن حیران است دلم روشن و دانشی خدا داد و اقبال ایزدی داشت اگر راست جوئی سببش همین است که دامن دلش از غبار تعصب صاف بود گویند دسته در خط و سوادى از علم نداشت روزی سفیر روم رسید و بگذازش پیام نامه گذرانید اکبر نامه را سر بزیور و پائین بالا گرفت سفیر تبسم کنان بنگریست فیضی دریافته ضبط نتوانست و گفت در حضرت ما سخن نگوئید پیغمبر ما مانیز اُمی بود با اینهمه در فن تاریخ آگهی تمام داشت خصوصاً قصص هند را نیکو دانسته به نظم و اشعار لذت گرفته و نکتههایش نیکو دریافته \*

2. Translate into Persian the following passages:—

A good man the only true friend.

1. A good man is the best friend, and therefore soonest to be chosen, longer to be retained, and, indeed, never to be parted with, unless he cease to be that for which he was chosen. The good man is a profitable useful person; and that is the band of an effective friendship. He only is fit to be chosen for a friend who can give counsel or defend my cause, or guide me right, or relieve my need or can and will, when I need it, do me good. My friend is a worthy person when he can become to me a guide or a support, an eye, or a hand, a staff or a rule. There must be in friendship something to distinguish it from a companion, and a countryman, from a school-fellow or a fellow-traveller. Those friendships must needs be most perfect, where the friends can be most useful. For men cannot be useful but by worthiness in the several instances. He that is wise and virtuous, rich and at hand, close and merciful, free of his money, and tenacious of a secret, open and ingenious, true and honest, is of himself an excellent man and therefore fit to be loved: and he can do good to me in all capacities there I can need him, and therefore is fit to be a friend:—

2. I was hindered in my last, and so could not give you all the trouble I would have done. The description of a road, which your coach wheels have so often honoured, it would be needless to give you ; suffice it that I arrived safe at my uncle's, who is a great hunter in imagination his dogs take up every chair in the house so I am forced to stand at this present writing ; and though the gout forbids him galloping after them in the field, yet he continues still to regale his ears and nose with their comfortable noise and smell. He holds me mighty cheap, I perceive, for walking when I should ride and reading when I should hunt.

3. The musket was first, made in Italy in the year 1430. But the cannon was used in England a hundred years before that date. M. Barafi, in his lecture before the Scientific Institute of France in 1850, said, that both cannon and the musket were in use in China about 618 years before Christ. As to the powder, there are divergent opinions about it. It is said that it was known amongst the Hindus about the time of Moses ; and it is supposed that the Arabs brought it to Europe. But some say it was invented by a German monk named Schwartz, in the fourteenth century ; others say that an Englishman named R. Bacon invented it in the year 1270.

### SANSKRIT.—FIRST PAPER.

PT. D. N. CHAKRAVARTI, M. A., ...*Examiner.*

1. Translate into English :—

एकदा जम्बूकेन सुनिश्चितमुक्तम् । सखे मृग । एतस्मिन्  
वनैकदेशे शस्यपूर्णं क्षेत्रमस्ति । तदहं त्वां नीत्वा दर्शयामि ।  
तथा कृते सति स मृगः प्रत्यहं तत्र गत्वा शस्यं खादति ।  
अथ क्षेत्रपतिना क्षेत्रं दृष्ट्वा पाशस्तत्र नियोजितः । अनन्तरं  
पुनरागतो मृगः पाशैर्बद्धोऽचिन्तयत् । कोमासितः कालपा-  
शादिव व्याधपाशात् त्रातुं मित्रादन्यः समर्थः । तत्रान्तरे  
चागत्योपस्थितो जम्बूकोऽचिन्तयत् । फलितं तावदस्माकं  
कपटप्रबन्धेन । मनोरथसिद्धिरपि मे बाहुल्याद् भविष्यति ।

यतः एतस्योत्कृत्यमानस्य सांसासृग्लिप्तान्यस्थीनि प्राप्तव्यानि नयाम ।

- Parse the underlined words.
  - Decline अस्त्यन्, अस्थि, and सिद्धि in the accusative (द्वितीया) locative (सप्तमी), and dative (चतुर्थी) cases respectively.
  - Write grammatical notes on प्रत्यहं, and उत्कृत्यमानस्य.
  - State the rules of *sandhi* in पुनरागतो वृगः, and मनोरथ-सिद्धिरपि.
2. Express in simple Sanskrit the sense of the following extracts.

- सतां सामपदं सैत्रवित्याहुर्विविधा जनाः ॥
- अविष्यदर्थे प्रमाणाभावात् कुत्र किं समाधातव्यम् ।  
उत्पन्ने यथा कार्यं मनुष्ठेयम् ॥
- यदाहंतव विरुद्धमाचरासि तत्सुकृतमन्तरे मया विधृतम्
- आपदां कथितः पन्था इन्द्रियाणामसंयमः ।  
तज्जयः सन्पदां सार्गो येनेष्टं तेन गम्यताम् ॥
- उपर्युपरि पश्यन्तः सर्वे एव दरिद्रति ॥
- त्रासहेतोर्विनीतिस्तु क्रियते जीविताश्रया ॥

Write grammatical notes on दरिद्रति.

3. Explain fully in Sanskrit :—

- न यत्र शक्यते कर्तुं सामदानमथापि वा ।  
भेदस्तत्र प्रयोक्तव्यो यतः स वशकारकः ॥
- मित्रद्रुहः कृतघ्नस्य स्त्रीघ्नस्य गुरुघातिनः ।  
चतुर्णां वयमेतेषां निष्कृतिं नानुशुभ्रमः ॥
- नानाहिताग्निं नैयाज्वा न क्षुद्रो वा न तस्करः ।  
कश्चिदासीदपोध्यायां न घातुतो न सङ्गरः ॥

(d) अपि सन्दत्वमापन्नो नष्टो वापीष्टदर्शनात् ।

प्रायेण प्राणिनां भूयो दुःखावेगोऽधिको भवेत् ॥

- (1) Expound the *samasa* of the underlined words.
- (2) Change the voices of the extracts (a), and (b).
- (3) How are प्रयोक्तव्या and यज्वा formed ?
- (4) Conjugate शक् in लङ् (first preterite).
- (5) Decline सामन् and यज्वन् in the nominative and accusative cases respectively.
- (6) Parse प्रायेण, and भूयः in extracts (d).

4. Expound the *samasa*s in :—

शत्रुभूतं, पीवरतनुः पुरुषाधमः, दुर्भिक्षम्, कुलिशपातो-  
पमम्, मर्मज्ञाः, संयोजितकरयुगलः, and सुनिवेशितवेशसान्ता.

5. Write down the meanings of the following words :—

विलयाः, प्रायोपवेशनम्, आध्मातः, व्यसनम्, श्रोत्रियः,  
अर्णवः, विसृज्यः, and भेषजम्.

6. Correct the following sentences :—

- (a) गुणवन्तः अपत्याः भवन्तु ।
- (b) भवान् अतिथिरसि मे ।
- (c) जीवन्नरः शतानिभद्राणि पश्यति ।
- (d) चित्रकः दूरे प्रगष्टा ।
- (e) सहगालः सुखेन सांसं ब्रुभोज ।
- (f) व्याघ्राय प्रकुपितः सिंहः आधाति ।
- (g) अधनेन धनं प्रापत्वा वृणवन् मन्यति जगत् ।
- (h) तेन सम महान् प्रीतिः सञ्जातः ।

SANSKRIT.—SECOND PAPER.

MAHAMAHOPADHYAYA PT. A.R. BHATTACHARYA, M.A., Examiner.

1. Translate into Sanskrit :—

- (a) You must be kind to animals. You must not hurt living

beings. All things that can breathe can feel as well as you can and should not be hurt.

- (b) What fine large tank ! Let us go and bathe in it. How cold the water is ! Do not go into deep water or you may be drowned. Can you swim ? No. I cannot. But I wish to learn if you will teach me.
- (c) Look how black the sky is. I think it will rain. Now it rains. Rain comes from the clouds and falls upon the earth and does a great deal of good.

2. Translate into English :—

- (a) नास्ति जीवितान्यदभिसततरं जगति सर्वजंतूनाम् ।
- (b) अपकारिषु यः साधुः साधुत्वे तस्य को गुणः ।  
अपकारिषु यः साधुः स साधुः सद्भिरुच्यते ॥
- (c) अब्धीरत्नमधोधत्ते धत्ते च शिरसा त्वयम् ।  
अब्धेरेव हि दीप्तोऽयं रत्नं रत्नं त्वयां त्वयम् ॥
- (d) निषेवते प्रशस्तानि निन्दितानि न सेवते ।  
अनास्तिकः अद्वयान एतत् परिदलजगत् ॥
- (e) अस्मिन्नं कुण्ठते मित्रं मित्रं द्वेष्टि हिनस्ति च ।  
कर्म चारभते दुष्टं तन्माहुर्दूढचेतसम् ॥
- (f) अनाहूतः प्रविशति अपृष्टो बहुभाषते ।  
अभिश्चरते विश्वसिति दूढचेता नराधमः ॥
- (g) गुणवद् वस्तुसंस्पर्शं जगति स्वल्पोऽपि नौरवम् ।  
पुष्पमालालुपङ्गेषु सूत्रं शिरसि धार्यते ॥

## HISTORY.

MISS J. ELDER RAIT, M.A.

M. CROSSE Esq., M.A.

... } Examiners.

1. Give a brief sketch of the events which led to the Norman Conquest. Mention any changes which it introduced into the laws and institutions of England.

2. Draw up a table giving the names and dates of the chief battles of the Wars of the Roses, and showing the victorious party in each case.

3. Enumerate the chief events in the reign of Queen Elizabeth, and describe any one of them.

4. (a) Briefly explain Pitt's policy towards France under the Revolutionary Government.

(b) Write a short account of the chief events of the war between England and Revolutionary France up to the peace of Amiens.

5. How did the Reform Bill amend the system of representation? By whom was it introduced?

6. Give an account of the various Greek invasions of India.

7. Trace the rise and fall of the French in India.

8. Write brief biographical notes on each of the following :—

- (1) Amir Khan. (2) Count Lally. (3) Mir Jaffar.  
(4) Sher Shah. (5) Raghoba.

## GEOGRAPHY.

F. G. HOUSDEN, ESQ., M.A.

J. W. BACON, ESQ., M.A.

} *Examiners.*

1. Discuss the causes that influence the climate of particular places.

2. Show how to find (a) the latitude (b) the longitude of any station.

3. What are Coral Islands? How are they formed?

4. Give a detailed explanation of the formation of Springs.

5. Trace the belt of Volcanic action throughout the world.

6. Draw up a list of animals common to India and Africa. Why is the India *fauna* more nearly allied to the African *fauna* than to the Australian?

7. Describe the river and lake systems of Africa, mention any travellers who have explored the African rivers.



8. Trace the course of the Indus.
9. What are the following? Give their exact localities, Liverpool, Tasmania, Nijnei-Novogorod, Silhet, Bulgaria, Arcot. Damascus, Newcastle, Khartoum, Niagara.
10. Draw a neat map of Australia.
11. Sketch the river systems of England, indicating the positions of the chief towns on the river-banks.

### GEOMETRICAL DRAWING.

G. T. SPARKE, ESQ. ... *Examiner.*

1. Make a scale  $3\frac{3}{4}$  inches long to read feet and inches. Representative fraction  $\frac{1}{18}$ .
2. Construct a scale of chords to read to 10.
3. Construct an ellipse with diameters of 3 and  $1\frac{1}{4}$  inches.
4. Construct a triangle with sides of 2,  $2\frac{3}{4}$  and  $3\frac{1}{2}$  inches respectively, and within it construct a similar triangle with one side 1.5 inches.
5. In a circle with diameter of 2.5 inches construct a rectangle having two opposite sides 1.25 inches long and describe an equilateral triangle about the circle touching the circle at a given point B.

### ELEMENTARY PHYSICS AND CHEMISTRY.

E. G. HILL, ESQ., ... *Examiner.*

1. Define "force." What do you mean by the force of gravity? A large stone is suspended from a wooden beam by a piece of rope: state what would happen if there were no such thing as the force which is called cohesion.
2. What is the difference between solids, liquids, and gasses? Explain carefully the properties which are peculiar to each.  
A square block of ice is heated till it all passes away as steam: write down all the changes which take place.
3. Make a careful drawing of a common water-pump and describe its action in full.

4. Describe an experiment showing that metals do not conduct heat equally. Explain how you would graduate a centigrade mercurial thermometer.

5. Describe a Grove's battery? Why is this an improvement on Volta's battery? How can you make a magnet, from your battery and a piece of soft iron?

6. What is the difference between hard and soft water? A certain kind of hard water can be made soft by boiling. Explain this. Is river water ever hard? If so over what sort of bed does the river probably flow?

7. What is coal, and what is coal gas? Describe an experiment by which coal gas can be prepared. What else can be prepared from coal besides gas?

8. What is the difference between wrought iron, cast iron and steel? For what is each used? How is iron got from hæmatic iron ore?

9. What is the action of plants and animals on the air? If there were no plants what would happen to all the animals. Give reasons for your answer.

10. Give briefly one method only for the preparation of Nitrogen, Oxygen and Hydrogen.

Which of the following are metals and which are elements?

Carbon, Potassium, Red Lead, White Lead,  
Salt, Nitre, Potashes, Magnesium.

### BOOK-KEEPING.

BABU RAM KUMAR SIRCAR

...

...

*Examiner.*

1. What ought a marchant's Books to shew?

2. Which side of an account Book is allotted to debit account and which to credit account?

3. What is the Book-keeping by Double entry and why is it so called?

4. Which side of a Cash Book is always the greatest, and why?

5. What is the Ledger?

6. At the end of a year a Merchant balances his Ledger: describe the process.

7. Is each entry of Bills Receivable posted to the Dr. or Cr. of the person from whom the bill has been received.

8. Construct a Day Book, an Invoices Book, a Cash Book, a Ledger and a Trial Balance-sheet from the following transactions.

		Rs.	AS.	P.
April 1st	J. Smith commenced business with	2,500	0	0
Do. 2nd	Paid into Meerut Bank	1,500	0	0
Do. 3rd	Bought from John Bell & Co., Cawnpore.			
	40 lbs. Assam tea @ 0-12-0	30	0	0
	10 bags Rosa Sugar, 60 lbs.			
	@ 0-2-8	10	0	0
	24 tins mixed Biscuits @ 0-14-0	21	0	0
		<hr/>	61	0 0
		Rs.	AS.	P.
April 4th	Paid Trade expenses carriage	4	2	0
Do. 5th	Paid for shop Furniture	45	0	0
Do. 9th	Sold Goods for cash	15	7	0
Do. 15th	Drawn from Meerut Bank	150	0	0
Do. 18th	Bought from Ramji Mul of Bareilly			
	20 bags table rice 50 mds.			
	@ 7-8-0	375	0	0
	5 bags coarse rice, 10 mds.			
	@ 5-1-0	26	4	0
	25 bags	3	12	0
		<hr/>	405	0 0
Do. 20th	Bought Goods for cash	50	6	0
Do. 22nd	Drawn by J. Smith	25	0	0
Do. 23rd	Paid Trade Expenses, Income Tax	10	0	0
Do. 25th	Sold Goods for cash	7	3	0
Do. 26th	Sold to George Lloyd, Agra,			
	2 bags rosa sugar, 12lbs. @ 0-3-3	2	7	0
	5 lbs. Assam tea @ 1-0-0	5	0	0
	Packing	0	4	0
		<hr/>	7	11 0
April 28th	Sold to W. Hobson, Moradabad,			
	10 mds. Table rice @ 9-0-0	90	0	0
	Packings and other charges	1	12	0
		<hr/>	91	12 0
Do. 29th	Paid to Ramji Mul of Bareilly	380	12	0
	Disount allowed	24	4	0

9. What is the use of a Trial Balance-sheet ?

10. How do you ascertain the state of your affairs at the end of the year or at any other convenient time?

11. What is the meaning of the term "Taking Stock?"

12. Give abbreviations of the following terms:—

Account.

Errors Excepted.

On account of.

Per cent.

### POLITICAL ECONOMY.

A. H. PIRIE, Esq. ... ... *Examiner.*

1. (a) Define "wealth." Is a State Railway, a Public Park, or a Public Library wealth?

(b) State the aims of Socialism, and point out the existing reasons against it.

2. (a) Define "money." Why are *kauris* unsuitable as money?

(b) Why did the Mercantile System encourage exports and discourage imports?

(c) Can you account for the fact that a rupee now contains only 13 annas worth of silver?

3. (a) Explain Ricardo's theory of the rent of land. Ought the landowner to get all or any part of the increment of profit accruing from a sudden rise in the price of agricultural produce?

(b) Distinguish between the Revenue and Rent of the land in India.

4. (a) State the causes which determine the prices (1) of agricultural produce, (2) of manufactured commodities.

(b) Explain how an increased demand for a commodity may cause a fall in its price.

5. (a) Show that there is a conflict of interests between the labourer and capitalist in the distribution of wealth produced.

(b) Explain the system by which English workmen manage to secure the highest possible wages.

(c) What happens when the workmen claim and obtain higher wages than they have a fair right to?

(d) Why do English capitalists invest money in the construction of Indian railway?

6. Distinguish between the policy of free Trade and that of Protection; and show the result of the former on the price of

food in England, and of the latter on the price of manufactured goods in America.

7. Explain the nature and advantages of Bills of Exchange. Can you account for the fact, that if I purchase goods from Alexandria in Egypt, the merchant there will gladly accept payment by a Bill of Exchange payable in London?

8. (a) Enunciate Adam Smith's four canons of taxation.

(b) Distinguish, giving examples, between direct and indirect taxation. Which of these is more suitable to India and why?

### ENTRANCE AND SCHOOL-FINAL EXAMINATIONS 1899.

A. MEFF, ESQ., M. A.,	...	...	} <i>Examiners.</i>
J. C. KEMPSTER, ESQ.,	...	...	
MISS BAILEY	...	...	

(N.B.—*Correct answers to question 12 and any eight out of questions 1—11 will carry full marks.*)

#### ENGLISH.—FIRST PAPER.

1. Explain the following passages :—

(a) Then none was for a party  
Then all were for the state.

(b) As we wax hot in faction  
In battle we wax cold.

(c) Evening and morn the Thirty.  
Have turned the verses o'er,  
Traced from the right on linen white  
By mighty seers of yore.

(d) The harvests of Arretium  
This year old men shall reap ;  
This year young boys in Umbro  
Shall plunge the struggling sheep ;  
And in the vats of Luna  
This year the must shall foam  
Round the white feet of laughing girls  
Whose sires have marched to Rome.

(e) the holy maidens  
Who feed the eternal flame.

2. Describe in your own language (in about a dozen sentences) Horatius "gallant feat of arms."

3. Express in simple language the thought contained in each of the following passages :—

(a) My heart untravelled fondly turns to thee  
Still to my brother turns, with ceaseless pain  
And drags at each remove a lengthening chain.

(b) Though poor the peasant's hut, his feasts tho' small,  
He sees his little lot, the lot of all ;  
Sees no contiguous palace rear its head  
To shame the meanness of his humble shed ;  
No costly lord the sumptuous banquet deal  
To make him loathe his vegetable meal ;  
But calm and bred in ignorance and toil  
Each wish contracting, fits him to the soil.  
Cheerful at morn he wakes from short repose,  
Breathes the keen air, and carols as he goes ;  
With patient angle trolls the finny deep,  
Or drives his vent'rous ploughshare to the steep ;  
Or seeks the den where snow tracks mark the way  
And drags the struggling savage into day.

4. Give the *substance* of what Goldsmith says with regard to the characteristics of the French people.

5. While the present ocean, rising o'er the pile.  
Sees an amphibious world beneath him smile.  
What country is here described ? Show the appropriateness of the description.

6. Why is the *Traveller* called a *Prospect of Society* ?

7. Describe in about a dozen sentences how Perseus slew the Gorgon.

8. 'Each of us has a golden Fleece to seek and a wild sea to sail over ere we reach it, and dangers to fight ere it be ours.'

Fully explain the above Metaphor.

9. Write a short account of how Theseus fell by his own pride.

10. Explain the following terms :—

- (a) daily routine, (b) an eddy of wind, (c) live-stock  
(d) stockade, (e) privateer, (f) convalescence.

11. Explain the phrases in thick type :—

- (a) the ship, in consequence of the failure of the house  
for which it was built, was to be sold.  
(b) I was considered as some body  
(c) I was well-off  
(d) I signed my indentures.  
(e) His advances towards me were very coolly received.  
(f) I naturally took to everything connected with the  
sea.  
(g) Putting everything to rights.  
(h) I determined to go before the mast.  
(i) I am weaned from the things of this world.  
(j) The boy who was on his good behaviour stood sentry  
over it as brave as a judge.

12. (a) Wouldst shape a noble life? Then cast  
No backward glances on the past.  
And though some what be lost and gone,  
Yet do thou act as one new-born.  
What each day wants, that shalt thou ask;  
Each day will set its proper task.  
Give others' work just share of praise  
Not of thine own the merits raise.  
Beware no follow-man thou hate  
And so in God's hand leave thy fate.

(b) If I were to pray for a taste which should stand  
me instead under every variety of circumstances and be a  
source of happiness to me through life and a shield against  
its ills however things might go amiss and the world frown  
upon me, it would be a taste for reading. Give a man this  
taste, and the means of gratifying it, and you can hardly fail  
of making a happy man, unless indeed you put into his hands  
a most perverse selection of books. You place him in contact  
with the best society in every period of history, with the  
wisest and the purest characters that have adorned humanity.  
You make him a denizen of all nations—a contemporary of

all ages. The world has been created for him. It is hardly possible but the character of the reader should take a higher and better tone from the constant habit of associating in thought with a class of thinkers, to say the least of it, above the average of humanity.

Rewrite the above passages in your own words so as to bring out their meaning fully and clearly, omitting no idea expressed in the original.

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### SUPPLEMENT.

1. It has been said that 'Goldsmith in writing the Deserterd Village had not only an artistic but also a didactic purpose.' Explain the distinction here made.

2. Give, in your own words, a sketch of the character of the clergyman, in the Deserterd Village,

3. Explain the following passages:—

(a) Along the lawn where scattered hamlets rose,  
Unwieldy wealth and cumbrous pomp repose,  
And every want to opulence allied,  
And every pang that folly pays to pride.

(b) I still had hopes my latest hours to crown,  
Amidst these humble bowers to lay me down;  
To husband out life's taper at the close,  
And keep the flame from wasting by repose.

(c) Where then, ah! where shall poverty reside,  
To scape the pressure of contiguous pride?  
If to some common's fenceless limits strayed  
He drives his flock to pick the scanty blade,  
Those fenceless fields the sons of wealth divide,  
And even the bareworn common is denied.

(d) Those poisonous field with rank luxuriance crown'd  
Where the dark scorpion gathers death a round;  
Where at each step the stranger fears to wake,  
The rattling terrors of the vengeful snake;  
While oft in whirls the mad tornado flies,  
Mingling the ravaged landscape with the skies.

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## ENGLISH.—SECOND PAPER.

F. W. SUDMERSEN, ESQ., M.A.,	...	} <i>Examiners.</i>
W. A. HIRST, ESQ., B. A.	...	
C. H. LINTON, ESQ., M. A.	...	

1. Correct the following sentences where necessary and give reasons for your corrections:—

- (a) He is a man whom I think deserves encouragement.
- (b) He was angry at me asking the question.
- (c) Sense and not riches win esteem.
- (d) We must remember it is their circumstances, not they who are to blame.
- (e) You did not ought to do that.
- (f) I think I will be gone by the time you come.

2. Expand the following words and phrases in thick type into the subordinate sentences and state the kind of each subordinate sentence so formed.

- (a) Things seen are mightier than things heard.
- (b) He was too lazy to work.
- (c) The Ancient Britons rode in chariots with curved knives fastened to the wheel.
- (d) He did his work as usual.
- (e) The Commons resolved not to yield.
- (f) There was no danger of his being betrayed.

3. Supply the missing words in the following sentences:—

- (a) The speeches of Mr. Gladstone were characterised .....eloquence.
- (b) He jumped.....the top of the wall and fell..... the platform.....the water.
- (c) He hurried.....the park, stalking.....the paths .....the trees.
- (d) He exposed himself.....the cold.....the doctor's warning.
- (e) He did nothing.....laugh.
- (f) The poor were dying.....hunger.
- (g) Wait.....I am ready; listen.....I sing.

4. (1) In the following sentences some of the words are incorrectly used. You are required to supply more appropriate ones without otherwise altering the sentences.

- (a) His object was to form subsidiary alliances with the native princes.
- (b) He won't do more than he can help.
- (c) I acquiesce with you that his character is undeniable.
- (d) By this means they will judge what to choose.
- (e) Some may doubt that his partiality has carried him too far.

(2) What word would you employ to fill up the blank space in the following sentence :—

“The Angel of Death has been abroad through the land ; we may almost hear the.....of his wings.”

5. Explain the difference in meaning between the following sentences :—

- (a) Do you say that he Will not return ?
- (b) Do you say that he should not return ?
- (c) Do you say that he shall not return ?
- (d) Do you say that he may not return ?

6. Parse the words in thick type :—

- (a) He is fond of learning music.
- (b) The ups and downs of life must come.
- (c) A man's a man for all that.
- (d) It is a joyful thing to dwell together in unity.
- (e) In digging the ground where I was working I found the spade of a working man.
- (f) How far that little candle throws his beams !

7. Analyse the following sentences :—

- (a) With him, directing his household,  
Gentle Evangeline lived his child, and the pride  
of the village.
- (b) The visitors arrived at a time when all was confusion
- (c) While we hear  
The tides of music's golden sea  
Setting towards eternity,  
Uplifted high in heart and hope are we,  
Until we doubt not that for one so true  
There must be other nobler work to do.

8. You are required to join together the following sentences, by the use of connecting words and proper punctuation marks, so as to make one sentence of the whole. The less important sentences should be made into subordinate ones.

- (a) The low murmur of the pupil's voices could be heard from this spot, on a drowsy summer day.
- (b) The pupils were conning over their lessons.
- (c) The sound was like the hum of a bee-hive.
- (d) The sound was interrupted, now and then, by the authoritative voice of the master.
- (e) The sound was interrupted, too, at times, by the appalling sound of the birch.
- (f) The master was urging some tardy loiterer along the flowery path of knowledge.

9. Re-write the following, changing indirect into direct speech, and direct into indirect, but making no other change. A tall stranger entered the office and enquired of the clerk whether his master was within, to which the latter responded in the affirmative.

'Is he alone?' enquired the stranger.

'I believe he is sir' replied the clerk.

'Show me to his room, without announcing me' said the stranger.

'What do you mean, Sir,' said the clerk.

'Are you deaf?' enquired the stranger.

'No, Sir.'

'Show me to your master's room without announcing me.'

### THIRD PAPER.

(Translation from Urdu.)

C. DODD, Esq.,

REV. E. S. OAKLEY, M.A.,

... } Examiners.

Translate into English :—

(a) اندور پہلے ایک گاؤں تھا - اہلیا بائی کے وقت میں (a) شہر ہو گیا - اوسکو اپنی رعایا کے مال میں کچھ بھی لالچ

نہ تھی اوسکی راج میں جو کسبیکي بڑھتی ہوتی تو اوسکو اپنی ہی بڑھتی سمجھتی تھی - گرمیوں میں جا بجا پنسلے بیٹھاتی تھی جاتوں میں کھل اور کپڑے بانٹتی اور بھوکھونکو جہان تک بن پڑتی کھانیکو دیتی تھی - اوسکے دلکی رحمت کا ایک چھوٹا سا نمونہ یہ ہے کہ ندی میں مچھلیوںکو کھلانے کے لئے آدمی نوکر تھے اور چڑیوں کے لئے پکے ہوئے کھیت مول لئے جاتے تھے - اوسکے عقل کا زور اور راج کا عہدہ بندوبست اسی بات سے ظاہر ہوتا ہے کہ آگے بہلیونکے لوت مارے بیوپاریوںکو راستہ چلنا مشکل ہو گیا تھا لیکن جب سے اوسنے یہ بندوبست کر دیا کہ بھیل لوگ خون پروری کے لئے ایک ادھیلا فی بیل بیوپاریونسے لیا کریں اور راستہ کی حفاظت رکھیں - اگر اونکے علاقہ میں کسبیکا مال چوری جاوے تو وہ دام دام بھر دیویں نہیں تو سزا واجب پاویں تب سے چوری چپاری لوت مار اون جنگل اور پہاڑوںمیں بہت گھٹ گئی \*

زمانہ گذشتہ میں ایک بڑی بڑی ریت یہ تھی کہ (b) مرد اور عورت اور انکے بچے بھی گائے بکریونکے مانند بکا کرتے تھے - اور جو اونکو مول لیتا تھا اوسکے وی غلام کہلاتے تھے - یہہ غلام اپنی مالک کی خدمت کرتے تھے - جسکام میں یہہ اونکو لگاتا تھا وہی اونکو کرنا پڑتا تھا چاہے اونکا دل اوس کام کرنیکو چاہے یا نہ چاہے نہ اونکو تمنخواہ ملتی تھی نہ محنت کی مزدوری دیتے تھے - سارے دنکی خدمت کے بعد مالک من مانا بھلا برا کھانا اونکو کھانیکے لئے دیدیتا اور اونکو وہی کھانا پڑتا تھا - خدا کا شکر ہے کہ اب یہہ بے رحمی کی ریت تقریباً ہر ایک ملک سے اوتہ گئی ہے - اگلے زمانہ میں غلاموںکو بہت تکلیف تھی - بہت پڑے جاہل پاجی

اونکو اپنا مال سمجھکر انکو بہت برے طور سے رکھا کرتے تھے - کام بہت سختی سے لیتے تھے اور کھانے پہننے میں بہت سختی کرتے تھے - بیچارے غلام بھاگ بھی نہیں سکتے تھے کیونکہ پھر پکڑے جاتے تھے تو انکو اور بھی بڑی سزائیں ملتی تھیں - جیتے جی شیر کو کھلوا دئے جاتے تھے اور ہاتھی کے پانوں سے کچلوائے جاتے تھے ۞

Translate into English:—

A.

इन्दौर पहिले एक गांव था अहल्या वाई के समय में शहर हुआ । प्रजा के धन में उसे कुछ भी लोभ न था । जो उसके राज्य में किसी की बढ़ती होती तो उसे वह अपनी ही बढ़ती समझती थी । गरमियों में जगह २ पौंसले चेंटाती थी जाड़ों में कम्बल और कपड़े वांटती और भूखों को अहां तक बन पड़ता खाने को देती थी । उस के मन की दया का एक छोटा सा दृष्टांत यह है कि नदी में मछलियों को खिलाने के लिये आदमी नौकर थे । और चिड़ियों के लिये पके हुए खेत मोल लिये जाते थे । उसकी बुद्धि का बल और राज्य का अच्छा प्रबंध इसी बात से प्रगट होता है कि आगे भीलों के लूटमार से व्यापारियों को वाट चलना कठिन हो गया था परन्तु जब से यह प्रबंध कर दिया कि भील लोग अपने निर्वाह को अधेला बैल व्यापारियों से लिया करें और रास्तों की चौकसाईं रक्खें । यदि उनके इलाके में किसी का माल चोरी जाय तो वे दाम २ भर दें नहीं तो उचित दण्ड पावें । तब से चोरी चमारी लूट मार उन जङ्गल और पहाड़ों में बहुत घट गई थी ॥

B.

पिछले समय में एक बड़ी बुरी रीति यह थी कि नर नारी और उनके बच्चे भी गाय बकरियों की भांति बिका करते थे। और जो इनको सोल लेता था ये उसके दास कहलाते थे। ये दास अपने स्वामी की सेवा करते थे जिस काम में यह उनको लगाता था वही उनको करना पड़ता था। चाहे उसका मन उस काम करने को चाहे वा न चाहे। न इनको वेतन मिलती थी न मिहनत मज़दूरी देते थे। सारे दिन की सेवा के पीछे स्वामी मनमाना भला बुरा भोजन इनको खाने के लिये देता था और इनको वही खाना पड़ता था। ईश्वर को धन्यवाद है कि अब यह निर्दयता की रीति प्रायः हर एक देश से उठ गई है। पहिले समय में दासों को बड़ा क्लेश था। बहुतेरे दुष्ट सूर्ख इनको अपना धन जान कर इनको बड़ी बुरी तरह से रक्खा करते थे। काम बड़ी कठिनाई से लेते थे और खाने पहिनने में बड़ी तल्ली करते थे। बेचारे दास भाग भी नहीं सकते थे क्योंकि फिर पकड़े जाते थे तो इनको और भी बड़े दण्ड मिलते थे। जीते जी सिंह से भक्षण करवाये जाते थे। हाथी के पांव से कुचलवाये जाते थे ॥

### MATHEMATICS.—FIRST PAPER.

BABU BENI MADHAV SIRCAR, M.A., ... }  
J. W. BACON, Esq., M.A., ... } *Examiners.*

(Full marks will be given for nine questions correctly answered.)

1. Simplify:—

$$\frac{1}{2} + \frac{1}{3} \text{ of } \frac{1}{4} + \frac{5}{8}$$

$$\frac{1}{3} \text{ of } (1 + 5\frac{1}{2}) + \frac{5}{8} \text{ of } \frac{1}{3} \text{ of } (7 - 2\frac{2}{3}) - \frac{1}{5}$$

and express  $\frac{2}{3}$  of Re. 1-5 as, as the decimal of Re. 1-4 as.

2. A number may be divided by 125, by multiplying it by 8, and then marking off the last three digits as decimals. Explain the reason for this; and divide 5335 by 125.

3. What is the meaning of an "aliquot part?"

Find by Practice the value of 24 tons 3 cwt. 2 qrs. 25 lbs. at £ 17-11s-6d. per ton.

4. A piece of work can be done in 72 days by 17 men working together. If after 9 days of work, these are joined by 4 others, in how many days will the work be finished?

5. Extract the square root of 5 and of .5 each to 4 places of decimals; and shew that the square root of .4 is .6.

6. What is the difference between the interest on a bill £138-13s-4d. for 3 months, at  $\frac{1}{2}$  per cent. per annum, and the discount on the same for a quarter of a year, at the same rate?

7. (a) A speculator sells at a profit of 50 per cent; but this purchaser fails, and only pays 8 as. in the Rupee. How much per cent. does the speculator gain or lose by his venture?

(b) A person investing in the four per cents, receives 5 per cent. for his money. What is the price of stock?

8. Find the difference between  $(1+x)^3 \div (1+x)^2 y \div (1+x)y^2 + y^3$  and  $3x(x+1) \div y(y+1) \div 2xy+1$  and find by what expression this difference must be multiplied that the product may be  $y^4 - x^4$ .

9. Find the Highest Common Divisor of  $x^5 - 4x^3 - x^2 + 2x + 2$  and  $x^5 - x^2 - 2x + 2$  and find such a value of  $x$  as will make both the expressions vanish.

10. Resolve the following expressions into factors.

(i)  $x^4 - 10x^2 + 9$ . (ii)  $a^2(a+b-c)^2 - c^2(b+c-a)^2$  and extract the square root of

$$\left(x + \frac{1}{x}\right)^2 - 4\left(x - \frac{1}{x}\right).$$

11. Solve the equations.

$$(i) \frac{x+a}{x-a} - \frac{x-b}{x+b} = \frac{2(a+b)}{x}$$

$$(ii) \frac{1}{x} + \frac{1}{y} = \frac{5}{6}; 3x + 2y = 2xy.$$

12. Express the sum of the fractions

$$\frac{1}{x(x-y)(x-z)}, \frac{1}{y(y-z)(y-x)} \text{ and } \frac{1}{z(z-x)(z-y)}$$

in its simplest form.

13. If  $\frac{x}{a} = \frac{y}{b}$  prove that

$$\frac{x^2+a^2}{x+a} + \frac{y^2+b^2}{y+b} = \frac{(x+y)^2 + (a+b)^2}{(x+y) + (a+b)}$$

### SECOND PAPER.

BABU UMESH C. GHOSE, M.A.

MAHAMAHOPADHAYAYA PT. SUDHAKAR DUBE

} Examiners.

(Full marks will be given for any nine questions correctly answered.)

1. State Euclid's twelfth axiom. Prove that if a straight line fall on two parallel straight lines, it makes the two interior angles on the same side together equal to two right angles.

Prove that two different straight lines, cannot be drawn through the same point parallel to a given straight line.

2. Prove that, in a right-angled triangle, the square described on the hypotenuse is equal to the sum of the squares described on the other two sides.

3. If a straight line is divided into any two parts, prove that the square on the whole line is equal to the sum of the squares on the two parts together with twice the rectangle contained by the two parts.



In a right-angled triangle, if a perpendicular is drawn from the right angle to the hypotenuse, the square on this perpendicular is equal to the rectangle contained by the segments of the hypotenuse.

4. Describe a square that shall be equal to a given rectilinear figure.

Given a square and one side of a rectangle which is equal to the square : find the other side.

5. Prove that angles in the same segment of a circle are equal.

If a series of triangles are drawn standing on the same base and having a given vertical angle, shew that the bisectors of their vertical angles all pass through a fixed point.

6. On a given straight line describe a segment of a circle which shall contain an angle equal to a given angle.

Construct a triangle, having given the base, the vertical angle and the altitude.

7. Inscribe a circle, in a given triangle.

Describe a circle, touching one side of a triangle and the other two produced.

8. Describe an isosceles triangle having each of the angles at the base double of the vertical angle.

9. The sides of a triangle are 5 inches, 7 inches and 8 inches respectively. Find the side of an equilateral triangle which is equal in area to this triangle. Give your result in inches correct to two places of decimals.

10. The chord of an arc of a circle is 5 yds. 1 ft. and its height, 2 ft. : find the length of the diameter of the circle.

11. The two parallel sides of a trapezium measure 58 yds. and 42 yds. respectively; the other sides are equal, each being 17 yds. ; find its area.

12. Draw a rough sketch of the field and find its area from the accompanying field-book :

turn	Links.	
	A	
	390	0
	250	40
	200	30
	100	0
	C	
	C	
	420	0
	360	40
From	250	left
	to the	
	B	
	B	
	450	10
	200	40
	100	70
	A	go East

## ARABIC.—FIRST PAPER.

SHAMS-UL-ULMA M. S. AMJAD ALL, M.A.

... Examiner.

1. Translate the following into English :—

قال بهرام ذكروا والله اعلم انه كان بهدينة الكوفة رجل من وجوه اهلها يقال له الربيع ابن حاتم و كان كثير الهمال مرفه الحال و كان قدر زق ولد افسها نعمة الله فبينما هو ذات يوم بدكة النخاسين ان نظر الي جارية تعرض للتبيع و علي يدها وصيفة صغيرة بدیعة في الحسن والجمال ف اشار الربيع الي النخاس و قال له بكم هذه الجارية وابنتها فقال بنخسين ديناراً فقال الربيع اكتب العهد و خذ الهمال و سلّمه له ولها ثم دفع للنخاس ثمن الجارية و اعطاه دلائته و تسلم الجارية وابنتها و مضى بهما الي بيته فلما مضت ابنة عنه الي الجارية قالت له يا ابن العم ما هذه الجارية - قال لها اشتريتها رغبة في هذه الصغيرة التي علي يديها و اعلمني انها اذا كبرت ما يكون في بلاد العرب و العجم مثلها و لا اجعل منها فقالت له ابنة عنه نعم ما رأيت - ثم قالت

للجارية ما أسبغ فقالت لها يا ستي أسبغني ثوبين - قالت و  
 ما اسم ابنتك قالت سجد - قالت صدقت لقد سعدت و سعد  
 من اشتراك ثم قالت يا ابن عبي ما نسبيها قال ما تختاري منه  
 قالت نسبيها نهم - قال الربيع فعم ما افكوت فيه - ثم أن  
 الصغيرة نهم قربت معه نعمة بن الربيع في عهد واحد الي  
 حين بلغا من العبر عشر سنين و كان كل واحد منهما احسن  
 من صاحبه و صار الغلام يقول لها يا اختي و هي تقول له يا اخي -

2. Re-write, very carefully, with diacritical marks, the underlined expressions in the above extract and give their literal as well as their transferred senses mentioning which is meant here.

3. Explain the following expressions in the above extract :—

رجزة اشليا - ذكة النخاسين - الجهد - قربت -

4. Translate the following into English :—

انظر اني ما تربي يا ايها الرجل \* وكن علي حذر من قبل تورتحل  
 و قدم الزاد من خير تفوزيه \* فكل ساكن دار سوف يورتحل  
 وانظر علي محشوزانو امانازنيم \* فاصبحوا في الثري و هنا بعا ملوا  
 بنوا بها فتح البنيان و ان خروا \* لم ينجمهم ما لهم لهما انقضي الاجل  
 كم املوا غير مقدور ايم فبضوا \* الي القبور و لم ينفعهم الامل  
 واستنزلوا من اعالي عزرتبتهم \* لذل ضيق لحدود ساء ما نزلوا  
 فبجاءهم صارخ من بعد ما دفنوا \* اين الاسرة و التيجان و الحلل  
 اين الوجوه التي كانت محببة \* من دونها تضرب الاستار و الهلل  
 فافصح القبر عنهم حسب سائلهم \* اما انخدود فغنمها الورن منتقل  
 قد طال ما اكلو يوم ما شربوا \* فاصبحوا بعد طيب الاكل قد اكلوا

5. Re-write the above extract with diacritical marks very carefully.

6. Give the singulars or plurals, as the case may be, of the following with English meanings of each as well as their roots :—

رجل - دار - اعالي - اسرة - تيجان - جلال - مدينه - مال -  
يوم - خدود - ساكن - جاريه -

### ARABIC.—SECOND PAPER.

MAULVI HAHOMED YUSUF JAFRI, ... Examiner.

1. Translate the following sentences into Arabic and give vowel-points to your translation :—

He was glad at the death of his rival. I sold the book which you gave me. A good name excels riches. Death pities none be he rich or poor. I wrote a letter to your brother in the month of Ramazan. He took away my money, and now desires to take my life from me. Whosoever spares the bad, does harm to the good. When he came to the town, all the inhabitants came out to meet him. He that has little money, has likewise little credit. A friend cannot be known in prosperity; and an enemy cannot be hidden in adversity. Zaid's brother is good child, because he reads his book. The mad and the woman, whom you saw yesterday, are dead to day, and will be buried to-morrow. One day of a wise man is worth the whole life of a fool. Wise men have their mouth in their heart, fools their heart in their mouth. Knowing is worth nothing, unless we do the good we know. He who has no children does not know what love means. I bought two horses for four hundred and fifteen dirhams.

2. Translate the following into English :—

اعلم ايها الولد العزيز ان - الله تعالى خلقك لتسبحي في  
خدمته - فتعبدته وتسبحه في الغدو والاصال \* اجعل الله صاحبك  
ودع الناس جانبا \* يا ابن آدم اخرج حب الدنيا من قلبك -  
فانه لا يفتح مع حب الدنيا و حب الله في قلب واحد \* حكى  
ان ملكا بنى قصرا وقال - انظروا ان كان فيه عيب فاصالحوا -  
فقال رجل من الزهاد - اربي فيه عيبين - فقالوا له وما هما -  
قال يموت المالك ويخرب القصر - فقال المالك صدقت - ثم  
اقبل على الله وترك القصر والدنيا وساح في البراري زاهدا \*  
مثل الدنيا كمثل الظل - اذا رايت حسبه ساكنا - وهو يهر  
دائما - وكذلك عمر الانسان يهر بالتدريج على الدوام و

ينقص كل لحظة \* قال افلاطون - لاتصحب اشر - فان طبيعتك  
يسرق من طبيعته شرا وانت لاتعلم \* قيل لحكيم - اي الهلوك  
افضل - ملك اليونان ام ملك الفرس فقال - من ملك غضبه  
و شهو تدفعو افضل \* اياكم والاحسد فان الاحسد ياكل الحسنات  
كما تاكل النار الحطت \* اذا احب الله عبدا اكثر غبه - و اذا  
ابغض عبدا اكثر دنياه \* ايام الدهر ثلاثة - يوم مضى لايعود  
اليك - ويوم انت فيه لايدوم عليك - ويوم مستقبل لاتدري  
ما حاله ولاتعرف من اهله \*

3. Define عامل; mention its division and subdivision, and give an example of each.

4. Define معرب and مبني; and state which of the following words are معرب and which مبني :—

هذا - يقول - ليس - هؤلاء - حكيم - يوسف

5. Give the various significations and Governments of ما and لا with illustrations.

6. Write down the ضمائر من معرب متصل through all the genders, numbers and persons.

### PERSIAN.—FIRST PAPER.

MAULVI SYED ABDULLAH,  
SHAMS-ULAMA M. ABDUL JALIL.

... } Examiners.  
... }

1. Translate the following passages into English, and add etymological or historical notes on :—

عباسيان - قرآن - دولت - ريش - فرعون مرصع - دلق موسي  
مروقع - توانگر - درويش - غره - بازار گانان - خانواده - فيلسوف -  
آل عبا - طولون - جداين سلطان - حاكم بامر الله \*

(a) توانگر فاسق كلوخ زرا اندودست و درويش صالح شاهه  
خاك آلود - اين يكے دلق موسي ست مروقع و آن ريش فرعون  
مرصع و ليكن شدت نيكان روي در فرج دارد و دولت بدان  
سر در نشيب \*

تلمیذ بے ارادت عاشق بے زورست و رونده بے معرفت مرغ  
 بے پر عالم بے عمل درخت بے پرو زاهد بیعلم خانه بے در مراد  
 از نزول قرآن تحصیل سیرت خوبست نه ترقیل سورت مکتوب\*  
 (b) مسجد طوگون - آنرا امیر بے از آن عباسیان کرده است  
 که حاکم مصر بوده است - و پرو زگار حاکم بامر الله که جدا این  
 سلطان بود فرزندان ابن طوگون پیدا شده اند و این مسجد را  
 به سی هزار دینار مغربی فروختند\*

هوای مکه عظیم گرم باشد و آخر بهمن ماه قدیم خیابان  
 باد رنگ و باد نجان تازه دیدم اینجا و این ثوبت چهارم  
 که به مکه رسیدیم غره رجب سنه اثنی و اربعین و اربعهائے  
 تا بیستم ذی الحجه به مکه مجاور بودم پانزدهم فروردین  
 قدیم انگور رسیده بود و اول اردی بهشت خرپزه فراوان\*

2. Of the following passages translate:—

(a) into English, word for word  
 paraphrase (b) in Persian, changing from 15 to  
 20 words

explain (c) in Persian referring to the context,  
 given the sense (مطلب) of (d) in Persian.

(a) هرگاه ذکر مقدمه یا نقل سر گذشتی بر زبان جواهر  
 فشان میروند مراتب سلامت و جزالت و مدارج براءت و بلاغت  
 چنان رعایت می یابد که دشوار پسندان سخن طراز و دقیقه  
 شناسان معنی پرداز قلائد فوائد آنرا آویزه گوش حقایق  
 فیوض میگردانند\*

(b) به همین رفتار پسندیده کشور خویش را چنان بزرگ  
 کرد که گویند برین کشورش قادر بای مازندران خاور هندوستان  
 فرودین مصر و دریای سرخ باختر فرات - و واپسین پیهمبران  
 در روزگار وی بجهان آمد\*

(c) الحق بے چنان میدانے وسیع آویزه چنیں دو عفریت  
 منظر کوه پیکر بر روی کار نیاید - در زیر دست و پای این

دو بے ستون با چار ستون در اثنائے گریز و تعاقب جہانے  
دست خوش و پا مال گردد \*

(d) خط زیب نقط آن معدن مکارم و معانی کہ بر خط مہوشان  
خطہ دلربائی خط نسخ کشیدہ با شکستگی کمال درستی دارد -  
حسن نقطہ ہندوستان چون نقطہ حسن ہند عالمگیرست نقطہ  
شناسان و حسن پرستان ہر دیار مر او را اسیر \*

3. Give equivalent phrases to the following idioms:—

نعل در آتش شدن - مرغ زبانی کردن - بروی روز افتادن -  
از پا در آوردن - پیش باز نمودن - گنج کاوی کردن -

4. Explain the allusions in the following couplets and name the author of each:—

عصای کلیم اند بسیار خار خوار  
پس آنگہ نہایند خود را نزار  
سام کہ سیہرغ پسر گیر داشت  
بود جوان گرچہ پسر پیور داشت  
ای زادہ زبان فکوردست ہیچہ گہ  
نہرود این عمل کہ تو شداد کردہ  
زدانندگان بشنوا امروز قول  
کہ فردا نکیرت بپرسد ز ہول

5. Translate into English:—

ز مہر مکش سوی پیکار خویش  
گرفتہ مزن با گرفتار خویش  
من اربا تو چہریم بہنگام کیس  
شوم قایم انداز روی زمیں  
بازی چرخ بشکندش بیضہ در کلاہ  
زیراکہ عرض شہیدہ با اہل راز کرد

این مطرب از کجاست که سانه عراق ساخت

و آهنگ باز گشت براه حجاز کرد

6. (a) Give the *ماضی*, *مستقبل*, and *حال* of *امریستن*.  
 (b) How are *اسم فاعل* and *مصدر* formed in Persian?  
 (c) Analyse, using Persian Grammatical technicalities:—

(a) حال دائم چه گویت هست بغم سرشته

خون شده شکسته سوخته برشته

(b) جان زندگی از چشمه پر نوش تو دار

دل بستگی از سنبل گل پوش تو دار

# PERSIAN.—SECOND PAPER.

MAULVI SYED KALAN, M.A., ... } *Examiners.*  
 MR. M. AHMAD, ... }

1. Translation the following passages into English:—

(a) سقراط در عهد خود حکیم با کمال و عدیم الهمال بود و خلاق را با و امر الهی هدایت می فرمود - و از ارتکاب نواهی امتناع می نمود - مردمان ضلالت کیش و بطالت اندیش به عداوت او پرداختند - و پادشاه آن وقت را بقتل او ترغیب دادند - پادشاه بجهت دفع فتنه عوام و رفع فساد اناج به قتل او آماده شد - روزی حکیم را بخلوت طلب داشته گفت که برای دفع شورش خالایق مرا کشتن تو لازم آمد بهر چه بیکه هلاک خود بخواهی بعمل آید - حکیم زهر را اختیار فرمود بچهریک صد و نه سالگی راه ملک عدم پیمود - شاگردان او زیاده از دوازده هزار بودند - از مقولات اوست که اصل کارها تدبیر است و اصل تدبیر تقدیر - تقدیر بر تدبیر غالب است که آن سفلی است و این عالی - و هم ازوست که خوش آن کسی است که دشمنان از اندیشه رنج و آزار او مطمن باشند نه کسانی که دوستان ازو اندیشه شک باشند - و دوستان را برهمه



اسرار خود مطلع مگردان که اگر هیچگاه دشمن شوند بر تو غالب نیایند \*

آورده اند که خسرو پرویز از بزرگم پرسید که از طبقات (b) خلایق لائق سیاست کیست - گفت اے ملک خلایق پنجم طبقه اند - اول آنها که در ذات خود نیک اند از ایشان همه نیکی بخلق میبرد ایشان را تقویت باید کرد و با ایشان صحبت باید داشت - دوم جمعی که بخود نیک اند اما نیکی ایشان بکس نمیرسد - ایشان را عزیز باید داشت و بر خیر تحریض باید کرد - سوم گروهی که میانه حال باشند یعنی از ایشان نه خیر بمردم رسد و نه شریعتی در ذات خود نه خیر باشند و نه شر - ایشان را راع خیر باید نمود و از شر تعذیر باید فرمود - چهارم طایفه که ایشان بد باشند اما به کس بد فرسانند ایشان را خوار باید داشت تا ترک بدی کنند - پنجم فرقه که هم بد باشند و هم بدی ایشان بمردم رسد ایشان را سیاست باید کرد بوعده و وعید و تهدید آنگه ضرب پس حبس و آخر کار قتل \*

2. Translate the following passages into Persian:—

(a) Never speak anything for a truth which you know or believe to be false. Lying is a great sin against God, who gave us a tongue to speak truth and not falsehoods. It is a great offence against humanity itself; for when there is no regard to truth, there can be no safe society between man and man. And it is an injury to the speaker. Besides the disgrace which it brings upon him, it occasions so much baseness of mind, that he can scarcely tell truth or avoid lying even when has no colour of necessity for it; and, in time, he comes to such a pass, that, as other people cannot believe, he speak truth, so he himself scarcely knows when he tells a falsehood.

(b) When thou wishest to delight thyself, think of the virtues of those who live with thee; for instance, the

activity of one, and the modesty of another, and the liberality of a third, and some other good quality of a fourth. For nothing delights so much as the examples of the virtues, when they are exhibited in the morals of those who live with us, and present themselves in abundance. Wherefore we must keep them before us.

(b) A men went to a physician and asked for some medicine to relieve the pain that he had in his stomach. The physician inquired what he had eaten in the morning, and on being told that his breakfast had been some half-baked bread, he was going to prescribe something for his eyes. The sick man, cried out, "Well, sir, what have the eyes to do with the stomach?" The physician replied, "It is necessary to cure your eyes first, for had these been sound you would have seen better than have to taken such a breakfast."

### SANSKRIT.—FIRST PAPER.

PT. RAM SASTRI TAILONG

...

... Examiner.

1. Explain fully the following extracts in English:—

(1) संहितः श्रेयसी पुंसां स्वकुलैः स्वल्पकैरपि ।

तुषेणापि परित्यक्ता न प्ररोहन्ति तण्डुलाः ॥

(2) उपकारगृहीतेन शत्रुणा शत्रुमुद्धरेत् ।

पादलग्नं करस्थेन कण्टकेनेव कण्टकम् ॥

(3) दरिद्रान् भर कौन्तेय सां प्रयच्छेश्वरे धनम् ।

व्याधितस्यौषधं पथ्यं नीरुजस्य किमौषधैः ॥

(4) बहुभिर्मुखसंघातैरन्योन्यपशुवृत्तिभिः ।

प्रच्छाद्यन्ते गुणाः सर्वे मेघैरिव दिवाकरः ॥

(5) प्राणा यथात्मनीभीष्ठा भूतानामपि ते तथा ।

आत्मौपम्येन भूतेषु दयां कुर्वन्ति साधवः ॥

- (a) Give the roots of गृहीतेन, उद्धरेत्, and परित्यक्ताः and conjugate them in the third person of the second (preterite) (जिड्).
- (b) Parse the under-lined words.
- (c) Give the प्रकृति and प्रत्यय in श्रेयसी, and कौन्तेय
- (d) Change the voice of the extract (4).

2. स हिरण्यकः प्राह । भो न युक्तमुक्तं भवता । यतः स्वामिनोऽनन्तरं भृत्याः । स आह । भद्रं मदाश्रयाः सर्वे एते वराका स्वकुटुम्बं परित्यज्य समागताः । तत् कथमेतावन्मात्रमपि सन्मानं न करोमि । उक्तं च—

यः सन्मानं सदा धत्ते श्रुत्यानां क्षितिपोऽधिकम् ।  
वित्ताभावेऽपि तं दृष्ट्वा ते त्यजन्ति न कर्हिचित् ॥

अपरं मम कदाचित् पाशभङ्गं कुर्वतस्ते दन्तभङ्गो भवति अथवा दुरात्मा लुब्धकः समायाति तन्नूनं मम नरकपात एव । उक्तं च—

सदाचारेषु भृत्येषु संसीदत्सु च यः प्रभुः ।  
सुखी स्यान्नरकं याति परत्रेह च सीदति ॥

तच्छ्रुत्वा हिरण्यकः प्राह । भो वेद्म्यहं राजधनम् । परं मया तव परीक्षा कृता । तत्सर्वेषां पूर्वं पाशच्छेदं करिष्यामि । भवानप्यनेन बहुकपोतपरिवारो भविष्यति । उक्तं च—

कारुण्यं संविभागश्च यस्य भृत्येषु सर्वदा ।  
संभवेत्स महीपालश्चैलोक्यस्यापि रत्नगे ॥

(a) Translate the above extracts into English:—

State the rules of सन्धि in तच्छ्रुत्वा, एतावन्मात्रम्, स महीपालः, स आह, सर्वे एव and परिवारो भविष्यति.

(b) Decline भवत्, अस्मत् and पूम् in the accusative (द्वितीया), dative (चतुर्थी) and nominative (प्रथमा) cases.

(e) Give the roots of आह, स्यात्, धत्ते and सीदति.

3. Express in simple Sanskrit the sense of the following:—

- (1) यश्चावृणोत्यवितथेन कर्मक्षेत्रतं ब्रुवन्ननृतं संप्रयच्छन् ।  
तं वै मन्येत पितरं मातरं च तस्मै न द्रुह्येत् कृतमस्य जानन् ॥
- (2) यथैव ते गुरुभिर्भावनीयास्तथा तेषां गुरवोऽप्यर्चनीयाः ।
- (3) एतत्सर्वहनिर्देशेनैवमुक्तं यत्कर्तव्यं पुरुषेणेह लोके ।
- (4) ऋणशेषोऽग्निशेषश्च व्याधिशेषस्तथैव च ।  
पुनश्च वर्धते यस्मात्तस्माच्छ्रेयं न कारयेत् ॥

4. Turn into simple prose.

- (1) सिद्धं वा यदि वा ऽसिद्धं चित्तोत्साहोनिवेदयेत् ।  
प्रथमं सर्वजन्तूनां तत्प्राज्ञो वेत्ति नेतरः ॥
- (2) अपि सन्दत्त्वापन्नो नष्टो वापीष्टदर्शनात् ।  
प्रायेण प्राणिनां भूयो दुःखावेगोऽधिको भवेत् ॥
- (3) आरम्भगुर्वी क्षयिणी क्रमेण लघ्वी पुरा वृद्धिमती च पश्चात् ।  
दिनस्य पूर्वार्द्धपरार्द्धभिन्ना ह्यायेव सैत्री खलसज्जनानाम् ॥

(a) Expound the Samasas in the under-lined words.

(b) Explain fully the extract (3) in English or Hindi.

(c) Decline प्रायेण and भूयः in extract (2.)

5. Correct the following sentences and give reasons for your correction:—

- (a) त्वं मम मित्रोऽस्ति ।
- (b) महाराजः चतुरः कन्यका आसीत् ।
- (c) रामः देवान् अभयं ददुः ।
- (d) कुलालः सुन्दरं घटः क्रियते
- (e) चारैः दिवा जनानां विभेति

6. Expound and name the Samasas in :—

कृतकुशीपग्रहः, देवालयकुबजन्मनाम्, अशुपूर्णनयनः,  
and अवद्विधः

7. Write down the meanings of the following words :—

कृकच, निश्चलम्, प्रत्ययः, किङ्गुकः, तारः, प्रभूतम्,  
कृतान्तः, विदग्धः न्यग्रोधः

### SANSKRIT.—SECOND PAPER.

PT. D. N. CHAKRAVARTI, M.A.

... Examiner.

1. Translate into Sanskrit :—

A man was taking some fruits to his house. He carried them on his head. As he walked along the road, three or four of the fruits fell on the ground.

The man did not see them fall, so he went on. But a poor boy saw them fall and took them up.

The boy brought the fruits to him and put them in his hand. "You are a good boy," said the man, "Take the best you like for yourself."

The boy took one and the man went away. A lad then came up to the boy and said, "What a fool are you not to keep all that fell."

The boy replied, "Poor though I am, I don't like to take what is not mine own."

2. Translate into English :—

(a) एकदा कश्चिद्वाजा आगच्छन्तं हीनवेगं वणिजमेकं ददर्श । तेन हि वज्रकेन कपटिवन्धुना स राजा पूर्वं लब्धना हृतसर्वस्वो वने परित्यक्तः । इदानीन्तु तदवश्यं सुहृदं दृष्ट्वा स राजा करुणाविष्टः स्वप्रासादमानीय सुखोपविष्टं तं मादरं पप्रच्छ,—सखे प्रभूतधनोऽपि कथमित्यं दुस्वस्थोऽसि? वणिगुवाच—राजन् नाधर्मलब्धं धनं कदाचित् सुखाय भवति । वणिगहं स्वभावलुब्धस्तेन वाणिज्यार्थं समुद्रपारं गतः । तत्र

शतगुणं बाणिज्यमभत् । तस्मादागच्छतो मम तटान्तसमीपे  
बहिर्न निमज्ज, धनानि च विनष्टानि । प्राणावशेषोऽहं  
कथञ्चिदिहामतः । राजोवाच,—वित्तं विनष्टं, तत्र का चिन्ता ।  
तदधिकमपरं धनं ते दास्यामि ।

(b) अत्यन्तविमुखे दैवे व्यर्थे यत्ने च पौरुषे ।

मनस्विनो दरिद्रस्य वनादन्यत् कुतः सुखम् ॥

(c) पिता ददाति सर्वस्वं पुत्रेभ्यः परितोषवान् ।

न तु भाग्यञ्च बुद्धिञ्च दातुं तेनापि शक्यते ॥

(d) शुचित्वं त्यागिता शौर्यं समानं सुखदुःखयोः ।

दाक्षिण्यं चानुरक्तिश्च सत्यता च सुहृद्गुणाः ॥

(e) जनयन्त्यर्जने दुःखं तापयन्ति बिपत्तिषु ।

मोहयन्ति च सम्पत्तौ कथमर्थाः सुखावहा ॥

(f) प्रलाभ्यः स एको भुवि ज्ञानवानां

स उत्तमः सत्पुरुषः स धन्यः ।

यस्यार्थिनो वा शरणागता वा

न व्यर्थकामा विमुखाः प्रयान्ति ॥

## HISTORY.

W. JESSE, ESQ., M.A. ...

G. R. KAYE, ESQ., M.A. ...

... } *Examiners.*

(Nine questions correctly answered will carry full marks.  
Not more than nine questions are to be attempted.)

1. Mention the chief events, home and foreign, in the reign of Edward III.

2. Give a brief sketch of the reign of Henry VII.

3. Write a short account of the war between the "Grand Alliance" and France, giving the causes which led to it, the battles fought, and the ultimate results.

4. What were the causes of the civil war in the reign of Charles I. ? State the most important battles and their results.

5. Explain carefully :—

Compurgation and Ordeal; Witanagemot; Peter's Pence; Scutage; Lollards; Divine Right.

6. Describe when and under what circumstances the English obtained possession of Gibraltar; Bombay; The Cape; Jamaica.

7. Write a short account of Chandra Gupta and the foundation of the Maurya dynasty.

8. Give a brief outline of the reign of Jahangir.

9. Sketch the rise of the Marhatta power under Sivaji.

10. Write a short account of the 1st Sikh War, giving the causes which led to it, the battles fought, and the ultimate results.

11. What do you know of the following people :—

Baji Rao; Lord Dalhousie; Bairam Khan; Chait Singh; Dupleix; Malhar Rao.

12. Give the date and conditions of the following treaties, state between whom they were ratified :—

Purandar; Salbai; Bassein; Mangalore.

### GEOGRAPHY.

MR. CROSSE, ESQ., M.A. ...

G. F. MOSS, ESQ., M.A. ...

} Examiners.

*Of the 12 questions set, the candidates may answer 9. Any 8 of the 11 questions on General Physical Geography may be chosen; the last question on map-drawing is compulsory.*

1. Define :—Watershed, Moraine, Tropic, Longitude, Crevasse, Axis of rotation.

What are ocean currents? Give the course of the Gulf Stream.

2. What, and in whose possession are :—Madagascar, Vancouver, Labuan, Zanzibar, Guiana, Hayti, Singapore, Warsaw, Macao, Heligoland.

3. Give a description of the physical features of Spain, its climate and colonial possessions.

4. Name six of the most important products of India and the part of the country in which each is chiefly produced.

What are the chief imports of India and where do they come from?

5. Give the principal divisions of North America and the names and situations of some of its largest lakes.

6. Two persons setting out together travel all the way from Hongkong to London by sea. One goes through the Suez Canal and the other round the Cape of Good Hope. Where would they separate and what ports would each see?

7. Name any four European Nations having possessions in Africa with the name of one of the possessions of each, also name a republic and a kingdom in the same Continent.

8. Explain briefly the formation of rain, and state in what way it affects the Earth's surface.

9. What are springs? Why do they issue from between the beds of rocks along the sides of valleys.

10. Describe a volcanic eruption and state the position of the chief Volcanoes of Europe, Asia and America.

11. How are glaciers formed and where are the largest to be found? How do we know that they once existed in such countries as Britain where they no longer occur?

12. Draw a map of South America and shew therein the various countries, chief rivers and mountains. Lines of Longitude and Latitude should be put in as accurately as possible.

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## GEOMETRICAL DRAWING.

G. T. SPARKE, ESQ.,

...

... *Examiner.*

*Note.*—All figures *must* be obtained by *Geometrical construction only*. Sketches with theoretical explanations are not marked.

Lines of construction to be left in pencil, *answers only* to be inked in.

1. From one end of line 3 inches long set off an angle of  $75^{\circ}$  without the aid of a protractor or scale of chords.

2. Given a circle with 3 inches diameter find the centre, and from any point  $\frac{1}{2}$  an inch outside the circle draw a line tangent to it.



3. In a rhombus, with two opposite angles  $60^\circ$ , and sides 2.5 inches, draw the inscribed circle.
4. Construct an isosceles triangle with base of 3 inches, and vertical height 4 inches, also draw the inscribed semi-circle.
5. Construct a scale of 10 feet to 1 inch, and to that scale, construct a rectangle 40 feet 4 inches long, and 37 feet 10 inches broad.

## ELEMENTARY PHYSICS AND CHEMISTRY.

BÁBU G. N. CHAKRAVARTI, M.A., LL.B. ... Examiner.

(Full marks will be given for correct answers to any eight questions.)

1. How would you find the centre of gravity of a metal plate? Describe the common balance.
2. Explain clearly why boats made of iron do not sink in water, although iron is heavier than water. Also explain why a solid piece of iron sinks in water, but floats in mercury.
3. What is "Sound?" Would you hear the sound of thunder if the earth had no atmosphere? Why is there generally an interval between the flash of lightning and the sound of thunder? Why does the roar of the thunder last longer in mountainous regions than in the plains?
4. What do you understand by 'latent heat of water' and how would you find it? Why does water boil at a lower temperature on the top of mountains than in the plains?
5. What is a 'spectrum?' How would you produce a solar spectrum? Explain clearly the property of light which renders its production possible.
6. Describe the 'gold-leaf electroscope' and explain its working, noting the stages at which its action depends upon the principle of 'electrical induction.' What is the difference between a 'magnet' and an 'electro-magnet'?
7. Name any gas (1) that supports combustion, (2) that burns and (3) that neither supports combustion nor burns itself. Describe an apparatus to show the combustion of a gas.

8. How would you determine the composition of pure water? Ordinarily spring or well water leaves a deposit at the bottom of the kettle after it is boiled. Why?

9. What is the difference between 'impurities in solution' and 'impurities in suspension?' How would you get rid of each? What are 'crystals?'

10. Distinguish between 'elements,' 'compounds' and 'mixtures.' Under which head would you place the following:—(1) Gunpowder, (2) brass, (3) air, (4) common salt, (5) iron, (6) water.

11. What substances would you require to prepare 'nitric acid?' How much of these substances would be necessary to get 15lbs. of 'nitric acid?' Describe the important properties of the acid. Define 'salts.'

### BOOK-KEEPING.

BABU RAM KUMAR SIRKAR,

... *Examiner.*

1. Under what heads may the Property of persons in business be comprised?

2. What is the use of the Invoice-Book and why is it called Invoice-Book?

3. On which side of a Cash-Book must the balance always fall and why?

4. What is Book-Keeping by Single Entry?

5. Describe the method of posting the Invoice-Book into the Ledger; under Double Entry, when the merchant wishes to know merely the total amount of goods purchased and sold and the profit on the whole.

6. Describe the method of posting the Bills Payable into the Ledger, under Double Entry.

7. From which books do you obtain the information necessary to ascertain the whole amount of goods bought and sold by a merchant during the year or any given time?

8. Why is the Received called the Dr. side of the Cash-Book?

9. At the end of every month after all the books have been posted, how do you ascertain that each entry in the Ledger has been posted correctly?

10. If a person who is owing an account becomes insolvent and pays a composition, how is the balance still due treated in the accounts?

11. What is the meaning of the term "Liabilities?"

12. Construct a Day-Book, an Invoice-Book, a Cash-Book, a Ledger and a Trial Balance sheet under Double Entry from the following transactions :—

			Rs.	a.	p.
Janry.	1st, James Davidson commenced business with ... ..	2,000	0	0	
Do.	4th, Bought from J. Watson, Calcutta—				
	5 Doz. Port Wine, 30/ ...	150	0	0	
	2 do. Brandy, 42/ ...	84	0	0	
	Packing and carriage ...	2	8	0	
		<hr/>	236	8	0
Do.	7th, Bought Goods for cash ...	25	4	0	
Do.	10th, Paid for Shop Furniture ...	45	6	0	
Do.	12th, Sold Goods for cash ...	17	8	0	
Do.	15th, Bought from W. Smith, Calcutta—				
	12 Reams Foolscap Paper, 2-8-0 ...	30	0	0	
	15 Reams Bally Papers 2-0-0 ...	30	0	0	
	Packing and Railway freight ...	16	8	0	
		<hr/>	76	8	0
Do.	20th, Paid into the Bank of Bengal, Allahabad ...	1,000	0	0	
Do.	23rd, Sold to C. Alexander Agra —				
	6 Bottles Brandy 4-8-0 ...	27	0	0	
	6 do. Port Wine, 3-4-0 ...	19	8	0	
	Packing ...	0	8	0	
		<hr/>	47	0	0
Do.	25th, Drawn from the Bank of Bengal, Allahabad ...	250	0	0	
Do.	26th, Paid Trade expenses, salaries ...	8	0	0	
Do.	27th, Sold to D. Gibson, Cawnpore—				
	4 Reams Foolscap Paper, 3-8-0, ...	14	0	0	
Do.	28th, Paid to J. Watson, Calcutta—	221	10	0	
	Discount allowed by him ...	11	13	3	
Do.	29th, Bought Goods for cash ...	12	4	0	
Do.	31st, Paid Trade Expenses, Rent for January ...	15	0	0	

## POLITICAL ECONOMY.

A. H. PIRIE, ESQ.,

Examiner.

N.B.—*Correct answer to any five questions will carry full marks.*

1. State the three requisites for the production of wealth; and classify under each head the following: A Railway Share; the business ability of a factory manager; a coalmine; the work of a *dhobi*; the stock of a *bannia's* shop; a spring of mineral water; a sewing-machine; a tank well stocked with fish.

2. (a) State and illustrate the four advantages of division of labour pointed out by Adam Smith.

(b) Point out the complex co-operation of labour required in the construction of a railway.

3. (a) Define *Capital*; and show that it is a requisite for Agricultural production and for manufactured goods.

(b) Distinguish between Circulating and Fixed Capital, giving examples.

4. (a) State the two functions of money; and enumerate the qualities that should be possessed by the substance selected as money.

(b) Is a ten-rupee note money? Why does the Indian Government wish to replace the rupee by a gold standard?

5. (a) State clearly Ricardo's theory of Rent; and deduce from it the corollaries, (1) that rent does not enter into expenses of production, and (2) that the rent of land does not influence the price of Agricultural produce.

(b) Can you give any reasons for the fact that the Indian cultivator actually does, in opposition to the above theory, calculate the rent of the land as part of the price at which he is willing to sell his grain?

6. (a) Give the substance of the doctrine of Malthus on Population. Illustrate this by pointing out the probable effect, (1) of early marriages in India,

and (2) of the work of Government in preventing the ravages of famine and plague.

- (b) State the law of diminishing productiveness; and show how it affects the profits of farmers and the wages of agricultural labourers in an old country.

7. (a) Explain the nature of a Trades-Union; and state the real cause of *strikes* and *lock-outs*. What is the ultimate effect of an excessive rise of wages at the expense of profits?

- (b) Distinguish between Protection and Free-trade, and show the effect of the former on the price of commodities. Would the Indian Government be justified in encouraging the manufacture of cotton cloth in this country by imposing a heavy customs duty on imported cotton cloth?

8. State Adam Smith's four canons of taxation. Apply these to criticise the validity of the following Indian taxes:—The Income-tax; the Land Revenue; the Octroi duties levied by Municipalities. Is the last named a *direct* or an *indirect* tax?

## ENTRANCE AND SCHOOL FINAL-EXAMINATIONS, 1900.

### ENGLISH.—FIRST PAPER.

1. Give in your own words the substance of the following passage and answer the questions at the end:—

"Strange to say I could not conquer my dislike to Mr. Masterman. I had nourished the feeling too long. I could not bear that my mother should be under obligations to him: it hurt my foolish pride young as I then was. Besides as I was put to a better school I was deprived of all my former enjoyments. I became discontented and unhappy merely because I was obliged to pay attention to my learning and could no longer have my own way."

- (a) *How is a 'feeling of dislike' 'nourished' and how can you try to 'conquer' it?*

(b) Give an instance of what is meant by saying that a person is 'under an obligation' to another.

(c) What is meant by 'foolish pride'? Is there any kind of pride which is not foolish? If so, give an instance.

2. Describe in your own words the scene depicted in the following passage. Do not keep close to the original.

"And all things stayed around and listened: the gulls sat in white lines along the rocks: on the beach great seals lay basking and kept time with lazy heads: while silver shoals of fish came up to hearken and whispered as they broke the shining calm. The wind overhead hushed his whistling as he shepherded his clouds towards the west: and the clouds stood in mid-blue and listened dreaming like a flock of sheep."

3. Explain the meaning of the following words and phrases printed in thick type and use the word or phrase in another sentence of your own construction with a different meaning. Where the words are used metaphorically use them with their literal meanings in your own sentences:—

- (a) They had a commanding view of the bay
- (b) like hounds that draw upon a deer
- (c) his mighty limbs were loosed
- (d) He sleeps among the kites and crows
- (e) These rocks by custom turn to beds of down
- (f) The Fathers grind the low.
- (g) the heroes fed her path with pine-trunks
- (h) Stout Argo groaned beneath their stroke
- (i) honour forms the social temper here.

4. In the following extracts point out clearly and fully all the points of comparison in each simile. Do not paraphrase the passages:—

- (a) And like a horse unbroken  
When first he feels the rein,  
The furious river struggled hard,  
And tossed his tawny mane,  
And burst the curb, and bounded

Rejoicing to be free,  
And whirling down, in fierce career,  
Battlement, and plank, and pier,  
Rushed headlong to the sea.

- (b) Meanwhile the Tuscan army,  
Right glorious to behold,  
Came flashing back the noonday light,  
Rank behind rank, like surges bright  
Of a broad sea of gold.
- (c) Each nobler aim, repress'd by long control,  
Now sinks at last, or feebly man- the soul :  
While low delights, succeeding fast behind,  
In happier meanness occupy the mind :  
As in those domes, where Cæsars once held sway,  
Defaced by time and tottering in decay,  
There in the ruin, heedless of the dead,  
The shelter-seeking peasant builds his shed :  
And wondering man could want the larger pile,  
Exults, and owns his cottage with a smile.
5. Answer the questions on the following extract :—  
For praise too dearly loved, or warmly sought,  
Enfeebles all internal strength of thought :  
And the weak soul, within itself unblest,  
Leans for all pleasure on another's breast.

*What is meant by saying that a person is 'unblest within' and why is such a person 'weak' ? How does a too great desire of praise cause this 'weakness' and how does it 'enfeeble all internal strength of thought' ?*

6. Answer one only of the following :—
- (a) Give in your own words the story of Horatius and his defence of the bridge.
- (b) Give the substance of what Goldsmith says about the character of the French.
- (c) Give a short account of Jason's search for the Golden Fleece, and the various dangers he encountered in finding and bringing it back.

7. Give in your own words the substance of the following passages in such a way as to show that you fully understand

the meaning and can express it in good English. Do not merely substitute other words and phrases for which no marks will be awarded.

## A.

The North American Indian lives in a state of perpetual hostility and risk. Surrounded by hostile tribes, whose mode of warfare is by ambush and surprisal, he is always prepared for fight, and lives with his weapons in his hand. As the ship careers in fearful singleness through the solitudes of ocean; as the bird mingles among clouds and storms, and wings its way, a mere speck, across the pathless fields of air;—so the Indian holds his course, silent, solitary, but undaunted, through the boundless bosom of the wilderness. He traverses vast forests, exposed to the hazards of lonely sickness, of lurking enemies and pining famine. His very subsistence is snatched from the midst of toil and peril. He gains his food by the hardships and dangers of the chase; he wraps himself in the spoils of the bear, the panther, and the buffalo, and sleeps among the thunders of the cataract.

## B.

Never stoops the soaring vulture  
On his quarry in the desert,  
On the sick and wounded bison,  
But another vulture, watching  
From his high aerial look-out,  
Sees the downward plunge, and follows;  
And a third pursues the second,  
Coming from the invisible either,  
First a speck and then a vulture,  
Till the air is dark with pinions.  
So disasters come not singly:  
But as if they watched and waited,  
Scanning one another's motions,  
When the first descends, the others  
Follow, follow, gathering flock wise  
Round their victim, sick and wounded,  
First a shadow, then a sorrow,  
Till the air is dark with anguish.



## ENGLISH.—SECOND PAPER.

## G r a m m a r.

1. (a) Parse fully the words in **thick type** in the following sentence :—

The work is difficult, but you can **but** do your best and if you work well, you cannot **but** derive some benefit from your exertions.

- (b) Parse fully all the words ending in—*ing* in the following sentences :—

(i) Laughing is contagious.

(ii) He lent me fishing rod.

(iii) "I am going a-milking, Sir," she said.

(iv) He is not fond of writing letters.

2. Correct the following sentences where necessary, giving reasons for any corrections you make.

(a) When Alexander invaded India ?

(b) Though he is not very clever, but he is ambitious.

(c) He told that "I am eighteen years of age."

(d) He said that under any circumstances he will not be long away from home.

3. Insert the necessary prepositions in the following sentences :—

(a) His servant is—the gate, waiting—a reply—his letter.

(b) He was seated—his table, thinking—the reply he was to send—a letter.

(c) The thief was struck—a stick—the policeman.

(d) Provide yourself—the books necessary—the evening examination.

4. Explain the following idiomatic expressions :—

(a) He shall answer for his crime with his life.

(b) It is a very short-sighted policy.

(c) He took up the cudgels in behalf of his friend.

(d) It was neck or nothing with him.

(e) He improves upon acquaintance.

5. Distinguish carefully between the following pairs of words and write sentences illustrating their correct use :—

elder and older,	artist and artizan,
artful and artificial,	practice and practise,
human and humane,	capture and captivate.

6. (a) Analyse fully in tabular form :—

One would imagine that, when a man is on his trial for a serious crime, he would have a tendency to forget his personal appearance, but strangely enough this is not the case, as some malefactors have exhibited quite a morbid vanity as to their appearance in the dock.

(b) Construct a Complex Sentence containing one principal sentence, one adjectival subordinate clause and one noun subordinate clause.

Analyse fully the sentence thus constructed.

7. (a) Put into Indirect Speech.

"I am tired of men," said the princess, "and of suitors, and of princes." "I will go to Zenda and ride in the forest all alone."

"You will meet men even there," said the king

"How do you know that sire?" she asked with a smile.

"At least I have found it impossible to avoid meeting women any where," replied the king.

"I do not think it is the same thing," observed the princess smiling again.

(b) Write down the words which the princess would use in repeating the above conversation to a third person.

ENGLISH.—TRANSLATION FROM URDU.

*Translate into English :—*

A.

شیر کو پیدل مارنا بہت مشکل کام ہے اور اس میں جان کا خوف ہے۔ کچھ آدمی تو یہہ کرتے ہیں کہ ہاتھی پر جنگل میں جاتے ہیں۔ اور جب شیر کو آقا ہوا دیکھتے ہیں تو ہاتھی سے اوتر کر ایک ہاتھ میں ایک بڑی تھال اور دوسرے ہاتھ میں ایک بڑی تلوار یا کتار لیکر سامنے گھٹنوں کے

بل بیٹھ جاتے ہیں۔ شیر اونپر چھپتا ہے پروے اوسکے  
 پنبہ کی چوڑی کو تھال سے بچا کر اوسکے سینہ میں کتار مار  
 کر اوسکو وندیں کرا دیتے ہیں۔ بعض دایر آدمی ایسا بھی  
 کرتے ہیں کہ شیر کو بھالوں سے مار کر اپنے پاس ہی نہیں  
 آنے دیتے۔ اور جب وہ پاس آجاتا ہے تو اپنے جوتوں سے جنکے  
 آگے کے جانب تیز کتار لگے رھتے تھوکرے مار کر اوسکو مار  
 دالتے ہیں۔ کہتے ہیں کہ ایک راجہ نے ایک وقت لارہ ریں  
 کے سامنے ایک بڑی تعجب انگیز دایری دکھائی تھی۔ لارہ  
 صاحب اور اونکے ساتھی لوگ ہاتھیوں اور گھوڑوں پر سوار  
 ہو کر راجہ صاحب کے ساتھ ایک گھنے جنگل میں گھسے۔  
 لارہ صاحب ایک ہاتھی کے دودے میں جھپڑ لڑھے کا پنجرہ  
 لگا ہوا تھا بیٹھے تھے۔ بکریاں چھوڑ دی گئیں اونکی بو پاکر  
 شیر اپنی جگہ سے نکلا۔ راجہ صاحب زرا پہنے ہوئے ایک  
 ایک ہاتھ میں بھالا اور دوسرے ہاتھ میں تھال لئے ہوئے  
 آگے بڑھے۔ اونکے دونوں جوتوں کے آگے کے جانب ایک ایک  
 تیز کتار لگا ہوا تھا۔ شیر کو دیکھتے ہی آدمی چلانے اور  
 ہاتھی چنگیارتے اور گھوڑے ہنہانے لگے۔ یہ بہادر راجہ  
 بکریوں کے پاس جا کر کھڑے ہوئے۔ شیر چھپتا ہوا راجہ نے  
 بھالے سے مار مار کر اسے اپنے پاس پہنچنے ندیا۔ شیر  
 کبھی بائیں کبھی داہنے جانب آتا تھا۔ اتنے ہی میں  
 راجہ نے موقہ پاکر شیر کی چھاتی میں ایسی تھوکر ماری  
 کہ کتار اوسمیں گیس گیا اور شیر اچھل کر چت گر پڑا اور  
 مر گیا۔ سب لوگ ایک ہی زبان سے راجہ کی بہادری کو  
 سراہنے لگے۔

B.

وقت ریل سے بڑی زیادہ بھاگنے والا۔ ہوا سے بڑھ کر اورتے  
 والا ہے۔ اور ایسا دپے پاؤں نکل جاتا ہے کہ کسیکو جان

نہیں پڑتا - سویرا ہوا سوکر اوتھے روز سرے کے کام سے نپٹتے -  
 کچھ کھایا پیا پھر دن چڑھ گیا پھر گھڑی دو گھڑی ادھر  
 ادھر اوتھے بیٹھے کچھ سبق یاد کیا کہ دس بجنے کو آئے -  
 مکتب جانیکو دیر ہوتی ہے جہت پت کھایا پیا مکتب گئے  
 وہاں سبق لیا چلو دن تھلا شام ہوئی گھر آئے تو کھانیکو  
 سوچھی جب پیٹ بھرا تو سستی آئی - لیتے تو آنکھیں  
 جھپکیں سویرا ہو گیا - ایسے ہی دن ختم ہوئے جاتے ہیں -  
 ایک شاعر نے کہا ہے -  
 صبح ہوتی ہے شام ہوتی ہے \* عمر یوں ہی تھام ہوتی ہے

Translate from Hindi into English :—

A.

व्याघ्र को पैदल मारना बड़ा कठिन काम है और उसमें  
 जान की जोखिम है। कुछ आदमी तो यह करते हैं कि  
 हाथी पर जंगल में जाते हैं और जब व्याघ्र को आता हुआ  
 देखते हैं तो हाथी से उतर कर एक हाथ में बड़ी ढाल और  
 दूसरे हाथ में बड़ी तलवार या कटार लेकर सामने छुटनें  
 के बल बैठ जाते हैं। व्याघ्र उन पर झपटता है पर वे उसके  
 पंजे की चोट को ढाल से बचा कर उसके छाती में कटार  
 मार कर उसको वहीं गिरा देते हैं। कोई-कोई साहसी समुच्च  
 ऐसा भी करते हैं कि व्याघ्र को सालों से मार कर अपने  
 पास नहीं आने देते और जब वह पास आ जाता है तब  
 अपने जूतों से जिनके आगे पैना कटार लगा रहता है  
 ठोकर मार कर उसको मार डालते हैं ॥

कहते हैं कि एक राजा ने एक समय लार्ड रिपन के  
 सामने अद्भुत पराक्रम दिखाया था। लार्ड साहब और  
 उनके साथी हाथियों और घोड़ों पर सवार होकर राजा

साहेब के साथ घने जङ्गल में पहुँचे । लाट साहय हाथी के  
 हौदे पर जिसमें लोहे का पोंजरा लगा हुआ था बैठे थे ।  
 बकरियां छोड़ दिई गईं और उनकी वास पाकर व्याघ्र  
 अपनी जगह से निकला । राजा साहब कबच पहने एक हाथ  
 में भाला और दूसरे हाथ में ढाल लिये आगे बढ़े । उनकी  
 दोनों जूतों के आगे एक २ पैना कटार लगा हुआ था ।  
 व्याघ्र को देखते ही आदमी चिल्लाने हाथी चियाड़ने और  
 घोड़े हिनहिनाने लगे । शूरवीर राजा बकरियां के पास  
 जाकर खड़े हुए । व्याघ्र झपटा पर राजा ने भाले से मार २  
 कर उसे पहुँचने न दिया । व्याघ्र कभी बाँट कभी दहने  
 और आता था । इतने ही में राजा ने अवसर पाकर व्याघ्र  
 के छाती में ऐसी ठोकर मारी कि कटार उसमें घुस गया ।  
 और व्याघ्र उछल कर चित्तगिर पड़ा । और मर गया ॥

सब लोग एक मुंह से राजा की वीरता को सराहने लगे ॥

### B.

समय रेल से अधिक भागने वाला है । हवा से बढ़ कर  
 उड़ने वाला है और ऐसा दवे पांव निकल जाता है कि,  
 किसी को जान नहीं पड़ता है । सवेरा हुआ सोकर उठे  
 नित्य कर्म से निपटे कुछ खाया पीया पहर दिन चढ़ आया ।  
 फिर घड़ी दो घड़ी इधर उधर उठे बैठे कुछ पाठ याद किया  
 कि दस बजने को आये । पाठशाला जाने को देर होती है ।  
 झट पट खाया पिया पाठशाला गये वहाँ पाठ पढ़ा चलो  
 दिन ढला सांझ हुई; घर आये तो फिर खाने की मूझी । जय  
 पेट भरा तो आलस लगा लेटे तो आंखें झपकी सवेरा हो  
 गया । ऐसे ही दिन बीतते चले जाते हैं । एक कवि ने कहा है  
 “सुबह होती है शाम होती है । उम्र योही तमान होती है” ॥

## MATHEMATICS.—FIRST PAPER.

1. State the rules for multiplication and division of decimal fractions.

Assuming that the surface of a sphere is 3.1416 times the square of its diameter, and that the earth is a sphere whose diameter is 8,000 miles, find what fraction of the whole surface of the earth is the area of India which is 1,350,000 square miles. Express your result as a decimal fraction.

2. What are *circulating* decimals? Distinguish between *pure* and *mixed* circulating decimals.

(a) Add together  $\frac{1}{6}, \frac{1}{30}, \frac{1}{42}, \frac{5}{66}$  and express the sum as a mixed circulating decimal.

(b) Reduce  $\cdot 041\dot{6} \times \frac{\cdot 14285\dot{7}}{\left(\frac{5}{12} + \frac{3}{8}\right) \times 40}$  of Rs. 8, 5 as.

to the fraction of 1 anna.

3. (a) Find, by Practice, the price of 100 bags of Rosa sugar, each weighing 4 seers 2 powas and 3 chataks, at 6 as. 9 p. per seer.

(b) Find the square root of 10.02 to three places of decimals.

4. What sum of money will amount to Rs. 3,528 in 2 years at 5 per cent, compound interest? and what will it amount to in two more years?

5. What monthly income will be derived from the investment of one lac of rupees in the  $3\frac{1}{2}$  per cent. Government of India paper at  $105\frac{13}{16}$ ?

6. Divide  $(1-x^2)(1-y^2)(1-z^2) - (x+yz)(y+xz)(z+xy)$  by  $1-x^2-y^2-z^2-2xyz$  and extract the square root of  $1+(x+1)(x+2)(x+3)(x+4)$ .

7. Simplify:—

$$\frac{(x-a)^2}{(a-b)(a-c)} + \frac{(x-b)^2}{(b-a)(b-c)} + \frac{(x-c)^2}{(c-a)(c-b)}$$

8. The expression  $ax+by$  is equal to 10 when  $x=2$  and  $y=3$  and it is equal to 23 when  $x=3$  and  $y=2$ ,  $a$  and  $b$  being constants; find  $a$  and  $b$ .

Solve :—

$$\frac{(x+a)(x+b)}{(x+c)(x+d)} = \frac{x-c-d}{x-a-b}$$

9.  $a:b, c:d, e:f$ , &c., are  $m$  equal ratios: prove that each of them is equal to

$$\sqrt[n]{\frac{(pan+qcn+rcn+\dots)}{pbn+qdn+rjn+\dots}}$$
 and also to

$$\sqrt[m]{\frac{(ace\dots)}{bdf\dots}}, \text{ where } n, p, q, r, \dots \text{ are any quantities}$$

whatever.

10.  $A$ 's present age is to  $B$ 's present age as 8:7; 27 years ago their ages were as 5:4. Find their present ages.

### MATHEMATICS.—SECOND PAPER.

1. (a) If one straight line stand upon another straight line the adjacent angles shall be either two right angles or together equal to two right angles.  
(b) The internal and external bisectors of an angle are at right angles to one another.
2. (a) The three angles of any triangle are together equal to two right angles.  
(b) Find the magnitude of each angle of a regular polygon of  $n$  sides.
3.  $ABC$  is a triangle, the angle  $ABC$  being an obtuse angle.  $AD$  is the perpendicular from  $A$  on  $BC$  produced. Prove that the square on  $AB$  is equal to the squares on  $AC$ ,  $CB$ , together with twice the rectangle  $BC, CD$ .
4. (a) The opposite angles of any quadrilateral inscribed in a circle are together equal to two right angles.

- (b) A circle described upon the hypotenuse of a right angled triangle as diameter, passes through the opposite angular point.
5. Circumscribe a circle about *any* regular polygon.
6. (a) Find in square feet the area of a square the diagonal of which is 7 yds. 1 ft.  
(b) A plank 15 in. wide is placed against the top of a wall 8 ft. high, while the other end rests on the ground 6 ft. from the wall. Find the area of the plank.
7. (a) The diagonals of a rhombus are 4 ft. and 1 ft. 2 in. Find the sides and the area.  
(b) Find the area of the quadrilateral  $ABCD$ , given  $AB=30\text{in.}$ ,  $BC=17\text{in.}$ ,  $CD=25\text{in.}$ ,  $DA=28\text{in.}$ , and  $BD=26\text{ in.}$
8. (a) The driving wheel of a locomotive is 5 ft. in diameter and makes 168 revolutions a minute. At what rate is the train travelling?
9. Draw a plan and calculate the area of a field from the following notes (measurements in *links*):—

	to D	
	1675	
	1380	500 to C
to E 250	1200	
	1040	200 to B.
to F 850	900	
From	A	go North,

### ARABIC.—FIRST PAPER.

1. Translate the following into English:—

روي الاصمعي انه قال بينا رجعت عن الحج بعد ان قضيت  
 مناسك الحج والتمج - وجبت المغاوزه والغياضي - اذا امسيت  
 في بادية من البوادي - فلما حان صلوة المغرب توضأت واتيت  
 الي مسجد كان في تلك البادية - فرأيت قوما يتهيئون  
 كلصلوة - فقام الامام يصلي فقرأ انا ارسلنا نوحا الي قومه -  
 وارقم عليه - فجعل يردد ويقول انا ارسلنا نوحا الي قومه -



فقال اعرابي من ورائه وهو قائم يصلي يا هذ ان لم يذهب  
فوح فارسل غيره \*

2. (a) Write out carefully the above passage with vowel-marks.

(b) What do you understand by the following ?

حج - صلوات - وضو - مسجد - منسك -

(c) Distinguish between :—

صلوات المغرب — صلوات الله — صلوات الرسول — صلوات الحاجة  
صلوات الناس علي الرسول -

3. Translate the following into English :—

الناس من جهة التمثال اكفاء ابوهم آدم والام حواء  
وانهم اميات الناس اوعية مستودعات ولا حشاش آباء  
فان يكن لهم في اصلهم شرف يغادرون به قاططين والباء  
وان اتيت بفخر من ذوي نسب فان نسبتنا جودو علياء  
لا فضل الا لاهل العلم انهم علي الهدى لمن استهدي ادلاء  
وقيمة البرء ماقد كان يحسنه والجاهلون لاهل العلم اعداء  
تقم بعلم ولا تبخي له بدلاء فالناس موتى واهل العلم احياء

4. Write out a short biography of the author of the poetical passage.

5. Write out the plurals of the singulars and the singulars of the plurals as the case may be of the following :—

مفاوز - فياني - بوادي - احساب - اعداء - احياء - فاس  
حاجي - اعرابي - ام - جود - اصل - اب - جواد -

6. Distinguish between :—

فتحه - ضمه - كسرة نصب - جر - رفع -

and explain them with examples.

7. Write out the changes the following words have undergone.

ق - بعن - قال - ذاب - داع - قلن - مبيع - تلق -

8. Write out, with vowel-marks, the names of the days of the week and those of the lunar months in Arabic.

### ARABIC.—SECOND PAPER.

N.B.—Give vowel-marks to every Arabic word you write in your answers; and write the numbers in words as well as in figures.

#### 1. Translate into Arabic:—

Every new thing is tasteful. A wise enemy is better than an ignorant friend. The troops returned into the camp loaded with spoils. She has three sons and six daughters. He who obeys his lusts is not a free man. Dutifulness towards parents is the foundation of all virtues. The golden ring, that you gave me, has been stolen. When do you intend to go to your native country? Both the men came to me laughing. We saw both the women taking their food. All the men, women, and children were killed in the battle. My eldest son was born on the twenty-fifth of the month of Shawwal, in the year one thousand two hundred and ninety-five A. H. Was your horse sold in the market on Monday? Give me the book that you showed me yesterday. If you would have a thing kept secret, never tell it to anyone. I gave your father three *dirhams* to buy a pair of shoes for me. Your sister gave me a handkerchief as a present. Do not waste your time in idleness. A rich man without charity is like a river without water.

#### 2. Translate into English:—

ان الله يفعل ما يريد \* اياك نعبد و اياك نستعين \*  
اهدنا الصراط المستقيم \* عش ماشئت فانك ميت واحبب  
ماشئت فانك مفارقة و اعمل ما شئت فانك مجزي به \* اعلم  
ايها الانسان انك مخلوق - ولك خالق - وهو خالق كل العالم  
و جميع ما في العالم - و انه واحد \* ما شاء الله كان و ما لم  
يشا لم يكن \* من حافظ علي الصلوة كانت له نورا و برهانا  
و فجة من النار \* ان اجاء الاجل فرق بين الروح والجسد \* ان  
مثال الدنيا كمسا فر طريق اوله المهد و اخره اللحد - و فيها  
بينها منازل معدودة \* سئل بعض الفلاسفة - من الذي لا عيب

فيه - فقال الذي لا يهوت : كل شئني تبدو صغيرا ثم يكبر الاله صيبة فانما تبدو كبيرة ثم تصغر : راحة الجسم في قلة الطعام - و راحة القلب في قلة الالهتاهام و راحة اللسان في قلة الكلام : اذا خرجت الكلمة من القلب دخلت في القلب - و اذا خرجت من اللسان لم تتجاوز الآذان - اعلم ان من خاف الله خاف منه كل شئني - و من لم يخف الله خاف من كل شئني :

### PERSIAN.—FIRST PAPER.

#### 1. Translate into English :—

و آن موضع را قبور الشهداء گویند پس ما دوروز به مدینه  
مقام کردیم و چون وقت تنگ بود برفتیم - راه سوی مشرق  
بود بدو منزل از مدینه کوه بود و تنگهای چون دره کوه آن  
را جحفه می گفتند و آن میقات مغرب و شام مصراست و  
گویند یک سال حجاج آنجا فروز آمده بودند با خلقی بسیار  
فلاک سیلی در آمد و ایشانرا هلاک کرد و آن را بدین سبب  
جحفه نام کردند و میان مکه و مدینه صد فرسنگ باشد اما  
سنگ است و ما به هشت روز رفتیم یکشنبه ششم ذی الحجه  
به مکه رسیدیم به باب الصفا فروز آمدیم و این سال به مکه  
قطع بود چهار من نان به یک دینار نیشاپوری بود  
و سبازین از مکه میرفتند و از هیچ جا حاج نیامده بود  
روز چهار شنبه به باری حق سبحانه تعالی به عرفات حج  
بگذاریم -

#### 2. (a) Point out Arabic words in the above extract and give their singular or plural as the case may be.

#### (b) What do you understand by :—

عرفات and مدینه , صفا , میقات

#### (c) Write the names of the days of the week and month of the year in Persian (solar as well as lunar.)

3. Translate into English, explaining the allusions contained therein.

برخوان غم چو عا لہیان را صلا زدند\* اول صلا بہ سلسلہٴ انبیا زدند  
 ذوبت بہ اولیا چو رسید آسمان طپید\* زان ضربتی کہ بر سر شیر خد ا زدند  
 پس آتش زاخگر الہاس ریزہا\* افر وختند و بر حسن مجتبیٰ زدند  
 و آنگہ سرا قے کہ ملک مہر مش نبود\* کندند از مدینہ و در کر بلا زدند  
 و ز تیشہٴ ستیزہ در آن دشت کوفیان\* بس نخل ہا ز گلشن آل عبا زدند

4. Who are called عبا آل and why? Answer in Persian.

5. (a) Give the derivations of the following words :—

تمہمتی - آستین - انگشتی - خارو - چوگان \*

(b) Where is the sign of اضافت dispensed with in Persian?

(c) Write six infinitives which are used both transitively as well as intransitively, with examples.

6. Translate into English :—

آن قصر کہ بہرام درو جا گرفت\* رو بہ بچہ کرد و شیر آرام گرفت  
 بہرام کہ گور مے گرفتے دائم\* امروز نگر کہ گور بہرام گرفت  
 بیگانہ اگر وفا کند خویش منست\* و رخویش جفا کند بد اندیش منست  
 گرزہر موافقت کند تریاکی است\* و رونوش مخالفت کند نیش منست

7. Name the authors of the extracts in the third and the sixth questions, and write in Persian a short account of any one of them.

8. Recite from memory five Persian couplets, other than those contained in this paper, and translate them into English.

#### PERSIAN.—SECOND PAPER.

1. Translate the following passages into Persian :—

A.

در ملک چین استعمال بادزن بسیار متعارف است نحویکہ  
 ہیچ کس را جایز و روا نیست کہ از خانہ بے بادزن بیرون

آید اگرچه هوا سرد باشد این عمل را بیشتر از برای زینت و بزرگی می کنند نه از برای ضرورت - دسته بادزن را از اقسام چیزها می سازند مثلاً از نی و چوب و دندان فیل و آبنوس - و اصل بادزن را از کاغذ و آبریشم و از گیاهها خوشبو می کنند و بر دسته نصب می نمایند - و بادزن مردم اکابر و امرا از کاغذ سفید زرافشان است هرگاه خواهند آنها را می پیچند و هرگاه خواهند را می کنند و در آنها اکثر اشعار و نکات سخن ها می نگارند - و نیز متعارف است که بطریق سوغات و هدیه برای یکدیگر بادزن می فرستند و این نشان دوستی و اخلاص است \*

## B.

مردی کوهستانی در شاهی امریکا شکار کرده در منزل خون بدیوار آویخته از پی ع کار رفته بود - در مراجعت بخانه شکار را نیافت - پس از ملاحظات بسیار پی بجائی قدم زد یافت باثرش روان شد بطرف جنگل - در میان درختان با چند کس ملاقی شد پرسید که شما ندیدید مرد کوتاه قد - سفید پوست سالخورده را که تغذک کوتاهی داشت و سگم کوچک کوتاه دم به عقبش روان بود - همه یک زبان گفتند آری دیدم - گفت چنان شخصی باین صفات شکار مرا برده - همه انگشت حیرت بدندان گزیدند و خواهش نمودند که بگوید چسان آن کس را بآن صفات یافته بود و حال آنکه چنان می نمود که گاهی او را ندیده بود - مرد جواب داد کوتاهی قامتش را بدان فهمیدم که توده سنگی فراهم کرده بود چه جائی که آن شکار آویخته بود قدری بلند بود از زمین - و پیریش را از آن دانستم که قدمهایش را نزدیک یکدیگر گذاشته بود و سبیدی پوستش را معلوم کردم بآنکه انگشتان پاهایش را در راه رفته کج نهاده بود و حال آنکه ساکنان اندیا را

این خصلت نیست و کوتاهی تغذگش را چنان دریافتم که چون به تده درختی گذارده بود از سر آن تغذگ نشانی بدرخت مانده بود و کوچکی سگش ظاهر گشت به نشان پایش - و اینکه آن سگ دم کوتاه بود واضح گشت مرا از مالیدنش بر خاک هر کجا که صاحبش ایستاده بود و آن حیوان بر زمین نشسته بود \*

2. Translate into Persian the following :—

The diet of the Arabian tribes in Persia is more frugal than that of the other inhabitants of the kingdom. It consists chiefly of dates. But what others would consider a hardship, habit, with them, has converted into an enjoyment and the Arab deems no food more delightful than that upon which he lives. Some years ago, a woman belonging to one of the Arab families settled at Abushahr, had gone to England with the children of the British Resident at that place. When she returned all gathered round her to gratify their curiosity about England. 'What did you find there?' 'Is it a fine country?' 'Are the people rich—are they happy?' Shew answered, 'the country is like a garden, the people are rich, have fine clothes, horses, houses, and carriages, and are said to be very wise and happy.' Her audience were filled with envy of the English and a gloom spread over them which showed discontent at their own condition. They were departing with this sentiment, when the woman happened to say; 'England certainly wants one thing.' 'What is that,' said the Arabs eagerly. 'There is not a single date-tree in the whole country!' 'Are you sure,' was the general exclamation. 'Positive' said the old nurse. 'I looked for nothing else all the time I was there, but I looked in vain.' This information produced an instantaneous change of feeling among the Arabs, it was pity not envy, that now filled their hearts; and they went away wondering how men could live in a country where there were no date-trees?

### SANSKRIT.—FIRST PAPER.

1. यथा ह्येकेन पादेन न रथस्य गतिर्भवेत् ।  
तथा पुरुषकारेण विना देवं न सिध्यति ॥

यत्कृत्येन यादेन तिष्ठत्येन बुद्धिमान् ।

नाऽश्मसीदत् परं स्थानं पूर्वमायतनं त्यजेत् ॥

नार्जारोऽवदत् । अहन्नत्र गङ्गातीरे नित्यं लायी निरा-  
सिषाशी ब्रह्मचर्येण चान्द्रायणव्रतमाचरंतिष्ठानि । युष्मांश्च  
धर्मज्ञानं सप्त विद्यासमयः पक्षिणः सर्वे सर्वदा मन्त्राग्ने  
प्रस्तुवन्ति । ततो भद्रहोत्रो विद्यावयोवृद्धेभ्यो धर्मज्ञोत्तमह-  
मन्त्रागतः । भद्रन्तश्चेद्गुणो धर्मज्ञा यन् नाशतिथिं हन्तुमुद्यताः ।  
गृहस्थस्यैव च धर्मः ।

अरावप्युचितं कार्यनातिथ्यं गृहमागते ।

लैतुः पार्श्वं गतां लायां नोपसंहरतेद्रुमः ॥

यद्यध्यक्षं नास्ति तदा प्रीतिवचनेनापि तावदतिथिः  
पूज्यः । तथा चोक्तम् ।

वृक्षानि भूषिरुदक्षं वायुं चतुर्थीं च नृनुता ।

एतान्यपि सतां रोहे नोच्छिद्यन्ते कदाचन ॥

(a) Translate the above extract into English:—

(b) Decline सन्, वाच्, प्रीति, छन्द and वदत् in the accusative  
(द्वितीय), locative (सप्तमी), dative (तृतीय), genitive (पञ्चम)  
and nominative (प्रथमा) cases respectively.

(c) Parse the underlined words.

(d) Conjugate ह, हन्, स्मृता and वद in the second future  
(लृट्), imperative (लोट्), present tense (लृट्) first  
preterite (जङ्) and second preterite (जिङ्) respec-  
tively.

2. Explain in Sanskrit.

(1) अत्यच्छेना विरुद्धेन कुवृत्तेनातिचारुणा ।

अन्तर्भिजेन संघातमौक्तिकेनापि वन्दनम् ॥

- (2) सेवितव्यो नहावृक्षः फलच्छायासमन्वितः ।  
यदि दैवात् फलं नास्ति छाया केन निवार्यते ।
- (3) न स्वल्पस्य कृते शूरि नाशयेन् मतिमान् नरः ।  
एतदेवहि पारिडित्यं यत् स्वल्पाद् शूरिरक्ष्यते ॥
- (4) यद्भावि न तद्भावि भावि चेन्न तदन्यथा ।  
इति चिन्ताविषयोऽयमगदः किं न प्रीयते ॥

(a) Parse the underlined words.

(b) Change the voice in extracts (1) and (4).

3. Turn into simple prose :—

- (1) एकेनापि शुच्यक्षेण पुष्पितेन सुगन्धिना ।  
वासितं तद्वनं सर्वं लुपुत्रेण कुलं यथा ॥
- (2) यो मित्रं कुरुते ब्रूहन्नात्मनोऽसदृशं कुधीः ।  
हीनं वाप्यधिकं वापि हास्यतां यात्यसौजनः ॥
- (3) व्यसनेष्वेव सर्वेषु यस्य बुद्धिर्न हीयते ।  
स तेषां पारमर्थ्येति तत्प्रभावाद् संशयम् ॥
- (4) शत्रुमुन्मूलयेत् प्राज्ञस्तीक्ष्णं तीक्ष्णेन शत्रुणा ।  
व्यथाकरं सुखार्थाय कण्टकेनेव कण्टकम् ॥

(a) Expound and name the *samāsas* in the underlined words.

(b) Translate the extract (4) into English or Hindi.

(c) State the rules of *sandhi* in एकेनापि, तद्वनं, यो मित्रं, ब्रूहन्नात्मनोऽसदृशं, हीनं वाप्यधिकं वापि, स तेषां, प्राज्ञस्तीक्ष्णं and कण्टकेनेव ।

4. बहुभिर्नूखसंघातैरन्योन्यपशुवृत्तिभिः ।

प्रच्छाद्यन्ते गुणाः सर्वे सैधैरिव दिवाकरः ॥



(a) Write out the purport of the above extract in English or Hindi.

(b) Change the voice of the above extract.

5. Write down the meanings of the following words in English or Hindi.

असृक्, स्नायु, लगुड, प्रतिविम्ब, कल्लोल, नागदन्त, कुलिश दुर्ग, and जातु ॥

SANSKRIT.—SECOND PAPER.

1. Translate into English any six of the nine extracts given below :—

(1) गच्छतस्तिष्ठतो वापि जाग्रतः स्वपतोऽपि वा ।

मा भून्मनः कदाचिन्मे त्वया विरहितं हरे ॥

(2) यादृशं जनमनः परमार्थं

यादृशं परधनग्रहणेषु ।

तादृशं यदि भवेज्जगदीशे

सोक्षवस्तु किमु तिष्ठति दूरे ॥

(3) अर्थार्थी यानि दुःखानि सहते रुपणो जनः ।

तान्येव यदि धर्मार्थी न भूयो जन्मभाग् भवेत् ॥

(4) किं तस्य दानैः किं तीर्थैः किं तपोभिः किमध्वरैः ।

हृदिस्थो यस्य भगवान् मङ्गलायतनं हरिः ॥

(5) विषयस्य विषयाणाञ्च दूरमत्यन्तमन्तरम् ।

उपभुक्तं विषं हन्ति विषयाः स्मरणादपि ॥

(6) दर्शनात् पावनाः सन्तः सन्तः शोकहरा गिरः ।

सेवनात् ज्ञानदाः सन्तः सन्तः संसारतारकाः ॥

(7) आदरेण यथा स्तौति धनवन्तं धनेच्छया ।

तथा चेत् विश्वकर्तारं को न मुच्येत बन्धनात् ॥

(8) मनो यस्य वशे तस्य भवेत् सर्वं जगद् वशे ।

मनसस्तु वशे योऽस्ति स सर्वजगतो वशे ॥

(9) पूर्वं किल भूतले चक्रवर्ती काशिराजो विद्याधरो नाम बभूव । तस्य विद्यावती नाम कन्यासीत् । सा सुचरितैर्मातरपितरावतीव सन्तोषयामास । अथ गच्छता कालेन सा स्वगुणान्विता बवृधे । काशिराजस्तु प्राप्तयौवनां तां दृष्ट्वा तद्विवाहार्थमुद्युक्तो बभूव । सा च तदालक्ष्य यावत् तीर्थस्नानैः शरीरशुद्धिं न विदधामि तावद् विरमतु मद् विवाह इति सखीद्वारा विवाहं निवार्य तीर्थयात्रायै पितरमनुज्ञां ययाचे । आबालकालादेव देवपूजादिनियमवर्ती सुतां जानानः पिता भवतु यथेयं वदति तथा करोमि इति गजवाजरथादि-  
सेनोपकरणानि प्रदायानुमेने ॥

2. Translate into Sanskrit any five of the following extracts :—

- (1) Riches are for the comfort of life ; not life for the sake of amassing riches.
- (2) Ten crows will eat together in peace but to dogs will not get on together on a carcass.
- (3) A greedy man is hungry with a world in his possession, while a contented man is satisfied with a little.
- (4) If a precious stone falls in a mire it is precious all the same ; and if dust ascend to heaven, it is none the less worthless.
- (5) The will of the almighty brings one down from a throne and preserves another in the belly of a fish.
- (6) A beggar whose end is happy is better than a king whose end is unhappy.
- (7) A wise man knoweth a fool because he hath formerly been ignorant ; but a fool does not know a wise man because he never was wise himself.

## HISTORY.

1. Describe the social and political state of England arising from the Saxon Conquest.
2. (a) Give an account of the important legal reforms introduced during the reign of Edward I.  
(b) Mention the causes of the Hundred Year's War. Give a short account of the campaigns of Edward III. in France.
3. When and under what circumstances was the "Petition of Right" enacted? State the principal provisions of that Act.
4. Explain the circumstances under which William III. came to the throne.
5. Mention the chief incidents in struggle between England and France arising from the French Revolution.
6. State the most important parts connected with the history of the Scythian Empire and of the Gupta Empire.
7. Contrast the policy of Akbar with that of Aurangzeb; and show how it was that Akbar's policy tended to consolidate the empire, while that of Aurangzeb led to its downfall.
8. Enumerate the administrative and social reforms that were carried out in India between the years 1288 and 1835.
9. Mention the additions made to the British dominions in India under the administrations of Warren Hastings and the Marquis of Wellesley.

## GEOGRAPHY.

1. A man journey's round the World along the equator.  
(a) Mention, in order, the countries, divisions, oceans and islands over which he would pass.  
(b) State what you know regarding the physical features and climates of the various countries and islands.  
(c) Give some account of the animals and races inhabiting these parts.

2. State accurately the positions of the following. Mention some circumstance of interest connected with each town and island, and state to what nation each island or group of islands belongs.

Towns.—Cologne, Glasgow, Quebec, Havana, Lyons, Marseilles, Oporto, Shanghai, Yokohama, Tobolsk, Singapore.

Islands.—Jamaica, Mauritius, Philippines, Canary, New Zealand.

3. Describe the chief physical characteristics of either Spain, or Egypt.

4. Name.—

(a) The divisions of India which receive the greatest and least rainfall.

(b) The chief seaports of England.

(c) The chief mountain and river systems of Asia.

5. Draw very neatly a map of Africa showing the principal physical features and chief towns.

6. Explain fully how there is a continual circulation of air and water the motive force for which is the Sun.

7. What is Coal? Explain, in detail, its formation.

8. Give clear explanations of—

(i) Why there is more dew on clear than on cloudy nights.

(ii) Why rain water is soft and spring water hard.

(iii) Why ice floats on water.

(iv) Why a balloon ascends.

## ✕ GEOMETRICAL DRAWING.

*Note.*—All figures *must* be obtained by *Geometrical construction only*. Rough sketches with theoretical explanation are *not* marked. Leave all lines of construction in pencil, *no* rubbing out. *Answers* to be in firm ink Lines.)

1. Construct a regular heptagon, with  $1\frac{1}{2}$  inch side.
2. Find the centre of a circle with 2 inch radius.
3. Construct a rhombus, with a side of 3 inches, and two opposite angles  $75^\circ$  each. Inscribe a square.

4. Construct a diagonal scale of 7·5 feet to an inch, to read inches. Draw a line of any length, and on it set off 25 feet 5 inches.

5. Construct an equilateral triangle with sides of 4 inches, and inscribe three equal circles, each touching two sides and two circles.

### BOOK-KEEPING.

1. Define the terms—

Interest, Capital, Discount, Invoice and Salvage.

2. What is a bill? What do you mean by—

(a) discounting a bill,

(b) retiring a bill, and

(c) renewing a bill.

3. Rule a form for a Cash Book suitable for recording the following transactions of a merchant by double entry:—

(a) Cash on hand ... .. Rs. 500

(b) Goods bought for cash ... .. „ 200

(c) Cash paid to Bank ... .. „ 200

(d) Received from Bank ... .. „ 50

Balance the Cash Book. What is the balance of cash on hand.

4. Make Journal entries—

(i) *B* sells sugar worth Rs. 70 to *A*

(a) part of cash ... .. Rs. 20

(b) part for his acceptance ... .. „ 30

(c) part on credit ... .. „ 20

(ii) *B* borrows Rs. 20 from *C*.

(iii) *B* lends Rs. 30 to *D*.

5. Describe the profit and Loss Account and show how the balance of this account is dealt with.

6. Explain the meaning and use of the Balance Sheet.

7. Janki Prasad's Assets and Liabilities on 1st January, 1899, are as follows:—

	Rs.
Cash ... ..	5,000
Sugar valued at ... ..	5,000
Bills Receivable, due on 29th January, 1899 ... ..	400
Bills Payable, due on 30th Jany., '99 ... ..	1,000

His transaction during the month :—

			Rs.
1st Jany., 1899.	Sold to A. Smith sugar	...	1,600
" "	Received from A. Smith his acceptance due 10th May, 1899	...	1,600
3rd "	Sold sugar for cash to Maharaja, Durbhunga	...	3,000
5th "	Bought from Sagar Mall sugar	...	20,000
7th "	Paid Sagar Mall in cash	...	6,000
	Accepted Sagar Mall's draft due 12th June, 1899	...	14,000
10th "	Discounted A. Smith's Acceptance, due 10th May, 1899		
	Received cash	Rs. 1,560	
	Allowed Discount, "	40	
		—	1,600
17th "	Sold to Nawab of Rampur sugar	...	18,000
25th "	Received cash from Nawab of Rampur	...	10,000
29th "	Received cash from Bills Receivable, due this day	...	400
30th "	Paid cash for Bills Payable, due this day	...	1,600
31st "	Paid cash for wages of clerks, &c.,	...	60
	Value of sugar in stock	...	4,000

Rule out a Ledger and post the above in it by Double Entry.

Prepare a Profit and Loss Account and Balance Sheet.

8. Describe the Process of Closing and Balancing Ledger.

## POLITICAL ECONOMY.

1. Indicate the exact service which labour renders to production. Distinguish between Productive and Unproductive labour, and state, giving reasons, whether the following persons are productive labourers :—

(a) A policeman.

(b) A violin maker and a violin player.

(c) A teacher of a medicine and a teacher of chess.

2. State the chief functions of Capital.

What is meant by saying wealth can perform the functions of capital by being wholly or partially consumed.

State, with reasons, whether Rs. 50,000 is capital in either of the following circumstances :—

(a) Invested in ornaments for the use of the family.

(b) Invested in railway.

3. Explain how the market price of a commodity tends to approximate to a sum just sufficient to yield the current rate of wages and profits to the producers.

4. On what does the rate of interest depend? What are the principal causes which give rise to fluctuations therein?

"High interest means bad security." Comment on this saying.

5. Compare the respective advantages and drawbacks of Trade Union and Corporations as agencies for improving the economic positions of the working-classes.

6. Give a brief account of *Schulze-Delitzsch* and *Peissen Credit Banks*.

7. Describe the tendency constantly in operation to produce an equality between the exports and imports of a country; and mention some of the circumstances which counteract this tendency.

8. Distinguish the different functions of money. How does credit operate as a substitute for money?

9. How does the *Income-Tax* affect the possessor of a small income as compared with the possessor of a large income?

10. State the arguments both for and against discriminating between permanent and temporary incomes in their assessment to the *Income-Tax*.

## ENTRANCE AND SCHOOL FINAL-EXAMINATIONS, 1901.

### ENGLISH.—FIRST PAPER.

[Answer only the questions asked. Do not give general paraphrases of the passages. Candidates are cautioned not to neglect the last question, for which 20 marks are assigned.]

1. Here the good duke lived with his loving friends, who had put themselves into a voluntary exile for his sake, while their land and revenues enriched the false usurper; and custom soon made the life of carelessness they led more sweet to them than the pomp and uneasy splendour of a courtier's life. Here they lived like the old Robin Hood of England, and to this forest many noble youths daily resorted from the court, and did fleet the time carelessly as they did who lived in the golden age.

(a) Who is the duke here referred to? Give a brief outline of the Tale from which the above extract is taken.

(b) Express in other words the meaning of the clause, "Who had put themselves into a voluntary exile for his sake."

(c) Explain "the pomp and uneasy splendour of a courtier's life." Why is it called "uneasy?"

- (d) Who was Robin Hood, and how is he said to have lived?
- (e) Explain the phrase "the golden age." Why is it so named, and how were men without care in that age?
- (f) Give synonyms for—usurper, resorted, fleet.

2. Explain the meaning and force of the words printed in thick type in the following.

- (a) Lear would not hear him out.
- (b) Item, two lips, indifferent red.
- (c) Shylock thought within himself, "If I can once catch him on the hip, I will feed **fat** the ancient grudge I bear him; he hates our Jewish nation; he lends out money gratis, and among the merchants he rails at me and my well-earned bargains, which he calls interest."
- (d) When the mind is at ease, the body has leisure to be delicate.
- (e) I took naturally to everything connected with the sea.
- (f) How do you make out that this island was made by them?
- (g) I can honestly say I was a better and more serious person; not but what I am bad enough now.
- (h) I don't mind building this wall.
- (i) Let us take the telescope, at all events, father.
- (j) I think you'll make a sharp, seaman by and by.
- (k) There is nothing like being prepared.
- (l) Suppose we return.

3. "Resolute men can do a great deal." Show how this sentence in "Mastermen Ready" is exemplified in the course of the story, and especially in the conduct of Ready himself. (The account must not exceed 300 words).

4. (a) O luxury! thou curst by heaven's decree,  
How ill-exchanged are things like these for thee,



What, in Goldsmith's opinion, are the evils produced by luxury? What are the "things like these" with which he contrasts luxury?

- (a) To me more dear, congenial to my heart,  
One native charm, than all the gloss of art.

*Explain the phrases "native charm" and "gloss of art," and bring out clearly the contrast implied.*

- (c) E'en his failings leaned to virtue's side.

*Of whom is this written? Express the meaning fully, illustrate it from the details given in the poem.*

5. No sound of joy or sorrow  
Was heard from either bank;  
But friends and foes in dumb surprise,  
With parted lips and straining eyes,  
Stood gazing where he sank;  
And when above the surges  
They saw the crest appear,  
All Rome sent forth a rapturous cry,  
And even the ranks of Tuscany  
Could scarce forbear so cheer.

- (a) *Describe the incident here mentioned.*

- (b) *Explain what is meant by "either bank," "friends and foes," "the surges," "the crest," and "the ranks of Tuscany."*

- (c) *What figure of speech is involved in the expression "all Rome?"*

- (d) *Express the last line in different words. What other meanings may "cheer" have?*

5. *Rewrite the following passages in your own words, taking care to express each idea fully and accurately:—*

- (a) What is meant by the poet's maxim, "A little-knowledge is a dangerous thing?" Not that knowledge, little or much, if it be real knowledge, is dangerous; but that many a man considers a mere slight and hazy view of many things, to be

real knowledge, whereas it does but mislead, just as a short-sighted man sees only so far as to be led by his uncertain sight over the precipice. Whatever we learn must be really studied and mastered, as far as it is taken up.

(b) Good manners are a passport in society, and usually determine a man's success in life. A good man often injures himself by his bad manners. Good manners, says Locke, are the fruit of good sense and of good feeling. If the law of kindness and gentleness be written in the heart, it will lead to that desire to oblige and to please others which is the foundation of good manners. The true way to learn courtesy is to place self last; therefore in being thoughtful of others we are cultivating good manners.

(c) Fortune attends the lion-hearted man  
Who acts with energy; weak-minded persons  
Sit idly waiting for some gift of fate.  
Banish all thought of destiny, and act  
With manly vigour, straining all thy energy  
The blame of failure will not rest with thee.

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#### ENGLISH GRAMMAR.—SECOND PAPER.

1. (a) Give the *singular* of the following nouns:—  
appendices, bases, radii, storeys, staves,  
cherubim, woes, automata, footmen.
- (b) and the *plural* of the following:—  
maid-servant, lord-lieutenant, court-martial,  
pailful, man-servant.
- (c) Give the *possessive case singular* of:—  
father-in-law, goodness, ladies, conscience.
- (d) and the *feminine* of:—  
fox, czar, duke, administrator.
2. (a) Is the verb in the following transitive or intransitive,  
“Not a drum was heard?”

- (b) What are the transitive verbs corresponding to *fall, lie, sit, rise*? Give the present and past tense and past participle of each of the transitive verbs you mention and give a sentence showing the use of each one in the present tense.
- (c) Put into the active voice; *Swords were drawn by the nobles*, and into the passive voice: *The earl demanded his name*.

3. Add a sentence to each of the following so as to show that you clearly understand when each should be used:—

- (a) *I did come.*  
 (b) *I ought to come.*  
 (c) *I ought to have come.*  
 (d) *I will come.*

4. (a) Distinguish between the following sentences;

- (1) If he *is* in the city I shall find him.  
 (2) If he *be* in the city I shall find him.  
 (3) If he *were* in the city I shall find him.

(b) What is the mood of *may* in the following?

- (1) You *may* go.  
 (2) I love you that you *may* love me in return.  
 (3) *May* you be happy!

5. What prepositions should be used after the following words?

Give a sentence to illustrate each:—

absolve, confide, worthy, expert, prejudice,  
 agreeable, correspond, confer, thirst.

6. Correct the following sentences where necessary and give reasons for corrections:—

- (a) I never have and never can believe it.  
 (b) What is the use of him saying so?  
 (c) They each followed in their turn.  
 (d) His was one of those violent temper, that produces such sad results.

7. Analyse the following and parse the words *in italics* :—

In Bruges town is *many* a street  
 Whence busy life hath fled ;  
 Where, without hurry, noiseless feet  
 The grass-grown *pavement* tread.  
 There heard we, *halting* in the shade,  
*Flung* from a *convent*-tower.  
 A harp that tuneful *prelude* made  
 To a voice of *thrilling* power.

8. Expand the following words and phrases *in italics* into sentences :—

- (a) He announced *the arrival of Caesar*.  
 (b) The boy went home *on the completion of his task*.  
 (c) He labours *to become rich*.  
 (d) He failed *through carelessness*.  
 (e) *This being granted* the proof is easy,

9. (a) Turn the following into *Indirect speech* :—

"Now just you stay where you are!" she said.  
 "I must go and see who's knocking," he replied.  
 "Whoever can be knocking at this time of night?"  
 "How do I know? That's just what I am going to find out?"  
 "I won't let you."  
 "What are you afraid of?"  
 "I'm frightened to death. You shan't go! I tell you you'll be killed."

- (b) And the following into *Direct speech* :—

She asked if he would be back soon and if she should wait for him. The servant replied that she had been expecting him for some time and requested her to walk in.

10. The following is an outline of a story. Tell the story in your own words following this outline. You may add a little to the story so as to make it more complete and interesting but the whole should not occupy more than twenty lines :—

A boy wandered from his home—entered a deep cave—saw two eyes glaring at him—the boy turned to flee—the animal bounded towards him—the boy fell down through fear—a shot was heard—the animal fell dead—the shot was fired by the father who had followed at a distance.

### ENGLISH.—THIRD PAPER.

Translate into English :—

A.

لڑکوں کو اچھی کتابیں پڑھانا اور بری کتابوں کے پڑھنے سے بچانا بیسی ماں باپ کا فرض ہے۔ اچھی کتابوں کے پڑھنے سے لڑکوں کو عہدہ باتوں کا علم ہوتا ہے اور جسطور سے دنیا میں برتنا چاہئے وہ ان کو معلوم ہو جاتا ہے۔ یقیناً جانو کہ قصہ کہانی اور عشق بازی کی باتوں کے پڑھنے سے لڑکوں کو سوائے نقصان کے کچھ فائدہ نہیں ہوتا۔ ایسی کتابوں سے تو جہاں تک ہوسکے بچانا ہی چاہئے۔ بڑے لوگوں کے کار نامی پڑھانا بیسی لڑکوں کے لئے نہایت فائدہ مند ہے۔ ان کے پڑھنے سے وہ ذرائع معلوم ہوتے ہیں جن سے انسان اپنی ترقی کرسکتا اور ناموری حاصل کرسکتا ہے۔ جب تک لڑکا بڑے لوگوں کے کار نامی نہیں جانتا تب تک یہ نہیں جان سکتا کہ کیا کرنا چاہئے اور کس طرح رہنا چاہئے اس سبب سے بڑے لوگوں کے کار ناموں کے راز پر چلنا سدا کے لئے خیر بخش ہے۔

B.

کسی جنگل میں تاریکے درخت پر ایک بیباک گھونسلہ تھا۔ یک دن ایام بارش میں شام کے وقت بیبا اپنے گھر میں بیٹھا تھا کہ ینا یک بادل اومٹ آیا۔ بجلی چمکنے لگی۔ بڑے بڑے ہونڈ گرنے لگے۔ اتنے میں ایک بندر دیکھ سے پریشان وہاں آنکلا۔ بارش سے دیکھ پا کر اس درخت پر چڑھ آیا۔ لیکن کہیں ایسے پتے نہ

تھے کہ اوس بے پناہ بندر کو بچا لیتے - کبھی اس شاخ پر اور کبھی اوس شاخ پر جا دیکھتا - جب اولے بھی گرنے لگے تب تو گھبرا کر چلانے لگا - بیبا سے اب رہا نہ گیا پکار کر بولا اے بندر تمکو خدانے آدم زاد سا بدن دیا ہے ہاتھ پاؤں دئے ہیں تم چاہو تو بہت کچھ کر سکتے ہو اگر اپنا ایک گھر بنا لئے ہوتے تو اسوقت کیسا کام آتا - دیکھو مجھکو میں بے پناہ چھوٹی سی چڑیا ہوں اپنے مقدار کے موافق کیسا ایک خوب صورت گھر بنا لیا ہے - سکھ سے بیٹھا ہوں اور خدا کا شکر گارہا ہوں - بندر ایک تو پہلے ہی سے چڑھا تھا بیبا کی باتوں سے جلیگیا اور جھنجھلا کر ایک ہاتھ مارا اور گھونسلے کو نوچ کے پھینک دیا -

صلاح دے دیجے اوسکو جسکو صلاح سمجھائے  
صلاح نہ دے دیجے بندر کو جو نقصان کرے

C.

ایک وقت کسی ملک پر محمود نے چڑھائی کی - اوس ملک کا مالک ایک کم عمر لڑکا تھا اور اوسکی ماں سلطنت کرتی تھی - جب اوس جانب محمود کی چڑھائی کی خبر سنی تب اوس عقلمند عورت نے کہلا بھیجا کہ اگر اپنے مجھ پر فتح پائی تو جہاں جہاں فتح لکھی جائیگی وہاں جہاں یہ بھی لکھا جائیگا کہ محمود نے ایک بیوہ عورت کے ملک کو بھی چھین لیا - اور اگر شکست پائی تو بڑے شرم کی بات ہوگی - محمود سمجھ گیا اور اونہر کا رخ چھوڑ دیا -

Translate from Hindi into English:—

A.

बालकों को अच्छी पुस्तकों का पढ़ाना और बुरी पुस्तकों को पढ़ने से बचाना भी माता पिता का धर्म है। अच्छी

पुस्तकों के पढ़ने से बालकों को उत्तम बातों का ज्ञान होता है। और जिस प्रकार संसार में वर्तना चाहिये वह उनकी मालूम हो जाता है। सिवाय वाली कि किसी कहानी और प्रकार रस की कथाओं के पढ़ने से बालकों को सिवाय मराने के कुछ लाभ नहीं होता। ऐसी पुस्तकों से तो जहां तक ही नके बचाना ही उचित है। श्रेष्ठ पुरुषों का जीवन चरित्र पढ़ाना ही बालकों के लिये अतीव लाभदायक है। उनके पढ़ने से जिन रूपायों से पुण्य अपनी उन्नति कर सकता है और कीर्ति प्राप्त कर सकता है सब मालूम हो जाता है। जब तक बालक बड़े लोगों के जीवन चरित्रों को नहीं जानता तब तक क्या करना चाहिये किस तरह रहना चाहिये नहीं जान सकता। इस कारण श्रेष्ठ पुरुषों के जीवन चरित्रों का अनुसरण करना सदैव कल्याणकारक है ॥

B.

किसी वन में ताड़ के पेड़ पर एक बया प्रती का घोंसला था। एक दिन वर्षा के ऋतु में तांक समय बया अपने घर में बैठा था कि एका एकी सेच उमड़ि आये बिजुली पनकने लगी। बड़ी र बूंदें पड़ने लगी। उतने में दुःख से आतुर एक बन्दर वहां आ निकला वर्षा से दुःखी होकर उन वृक्ष पर चढ़ आया। परन्तु कहीं ऐसे पत्ते न थे कि उस निराश्रय बन्दर को बचा लेते। कभी इस शाखा पर कभी उस पर जा दबकता। जब ओले भी गिरने लगे तब तो घबड़ा कर घिसाने लगा। बया से श्राव रहा न गया। पुकार के कहा शरै बानर तुम्हें परमेश्वर ने सनुष्य की सी देह दीयी है। हाथ पांव दिये हैं। तस चाहो तो बहुत कुछ कर सकते हो। यदि तुम अपना घर बना लिये होते तो उस समय दोसा पान आता। मुझको

देखो मैं असहाय छोटा सा पक्षी हूँ। अपनी अवस्था के अनुसार कैसा एक सुन्दर घर बना लिया है। सुख से बैठा हूँ और ईश्वर का धन्यवाद गा रहा हूँ। बानर एक तो पहले ही से चिढ़ा था। बया की बातों से जल गया। झुंकता कर पुनः हाथ सारा और घोंसले को नीज के फेंक दिया ॥

शिक्षा का को दीजिये जाको सीख सुझाय ।  
सीख न दीजे बन्दरा अपनी हानि कराय ॥

C.

एक बेर किसी देश पर सहस्रद ने चढ़ाई कियी। एक छोटी उन्न का बालक देश का स्वामी था और उसकी माता राज्य करती थी। जब उधर सहस्रद की चढ़ाई का समाचार सुना गया उस बुद्धिमती स्त्री ने कहला भैया कि यदि आपने मुझ पर जय पाई तो जहां २ जीत लिखी जायगी लहां २ यह भी लिखी जायगी कि सहस्रद ने एक विधवा का देश भी लीन लिया परन्तु यदि पराजय पाई तो बड़ी लज्जा की बात होगी। सहस्रद सन्नत गया और उधर का रुख छोड़ दिया ॥

### MATHEMATICS.—FIRST PAPER.

1. (a) What is the greatest length which is contained a whole number of times exactly in both  $25\frac{15}{28}$  feet and  $21\frac{9}{20}$  feet?

- (b) Find the value of

$$\frac{.49}{2.1} \text{ of } \frac{(3\frac{1}{3} - 2\frac{1}{2}) \div \frac{5}{8} \text{ of } \frac{2}{3}}{2\frac{2}{3} \div (\frac{1}{2} + 1)} \text{ of } £46.$$



2. (a) Express the difference between  $9\dot{4}2857\dot{1}$  and  $\cdot 85714\dot{2}$  as a vulgar fraction in its lowest terms.  
 (b) Extract the square root of

$$\frac{\cdot 0253 \times \cdot 365}{8\cdot 03}$$

to five places of decimals.

3. In a two-mile race  $A$  wins,  $B$  being 22 yards behind, and  $C$  106 yards behind  $B$ . By how much would  $B$  beat  $C$  in a three-mile race.  
 4. What sum at compound interest will amount to Rs. 650 at the end of the first year and to Rs. 676 at the end of the second year?  
 5. How much  $3\frac{1}{2}$  per cent. Government Securities at  $95\frac{1}{4}$  must be sold in order to purchase enough 5 per cent. Calcutta Municipal Debentures at 119 to produce an annual income of Rs. 665, a brokerage of  $\frac{1}{4}$  per cent. being charged on each transaction?

6. (a) Find the H.C.F. of

$$x^3 - 2x^2 + 1 \text{ and } 2x^3 + x^2 + 4x - 7.$$

- (b) Extract the square root of

$$(a-b)^4 - 2(a^2 + b^2)(a-b)^2 + 2(a^4 + b^4).$$

7. Simplify.

$$(i) (a-b+c)^2 - (a+b-c)^2 + 6a\{a^2 - (b-c)^2\}.$$

$$(ii) \frac{1}{1+x+x^2} - \frac{1}{1-x+x^2} + \frac{2x}{1-x^2+x^4}.$$

8. Solve the equations:—

$$(i) \frac{3x+1}{4} - 2(6-x) = \frac{5x-\frac{1}{2}}{7} - \frac{x-2}{5}.$$

$$(ii) \left. \begin{aligned} \frac{2}{x-1} + \frac{3}{y+1} &= 2 \\ \frac{3}{x-1} + \frac{2}{y+1} &= \frac{13}{6} \end{aligned} \right\}$$

9. A number has three digits which increase by 1 from left to right. The quotient of the number divided by the sum of the digits is 26. What is the number?

10. If  $\frac{x-y}{x+y} = a$ ,  $\frac{y-z}{y+z} = b$ ,  $\frac{z-x}{z+x} = c$ ,

shew that

$$(1-a)(1-b)(1-c) = (1+a)(1+b)(1+c).$$

### MATHEMATICS.—SECOND PAPER.

[N.B.—The usual signs and abbreviations are permitted.]

1. Any two sides of a triangle are together greater than the third side.

The sum of the distances of any point from the vertices of a triangle is greater than half the perimeter of the triangle.

2. The opposite sides and angles of a parallelogram are equal and a diagonal bisects it. Prove also that the diagonals bisect each other.

3. The rectangle contained by the sum and difference of two straight lines is equal to the difference of the squares described upon them.

4. The angles in the same segment of a circle are equal.

5. Inscribe a circle in a given triangle. Given the base and vertex angle of a triangle, find the locus of its incentre.

6. (a) In a right-angled triangle the sides forming the right angle are 24 ft. and 45 ft. Find the perpendicular from the right angle on the hypotenuse.

(b) In a parallelogram the perpendiculars between the two pairs of parallel sides are 64 ft. and 91 ft. If one side is 119 ft. find the adjacent side.

7. The two parallel sides of a trapezium measure 58 yds. and 42 yds., and the other sides are equal, each being 17 yds. Find the area.

8. (a) Two tangents drawn from an external point to a circle are at right angles and measure  $1\frac{3}{4}$  in. each. Find the area of the circle.

$$\left[ \text{Take } \pi = \frac{22}{7} \right]$$

(b) The chord of an arc is 48 in. and the chord of half the arc is 27 in. Find approximately the length of the arc.

$$\left[ \text{Take } \pi = 3.1416. \right]$$

9. Draw a plan and calculate the area of a field from the following measurements in links:—

From	to A 1700 C	range to A.
	to C 800 400	
From	B	65 go North.
	to B 1500 1100	180
From	625 A	240 go East.

### ARABIC.—FIRST PAPER.

1. Translate the following into English:—

قيل بيئها العجاج جالس في منظرة له - وعنده وجوه  
 اهل العراق - اذا اتى بصبي من الخزارج له من العبر فهو  
 بضح عشرة سنة - وله ذوابتان مروحيتان قد بلغتا خصرة - فليها  
 ادخل عليه - لم يحبها به ولم يكثر - وصار ينظر الي بناء  
 المنظرة - وما قيدا من العجائب - ويلتفت بيئها وشمالا - ثم  
 افدح يقول اتبنون بكل ربح آية تعجبون - وتتخذون مصانع  
 لعلكم تبخلون - قال و كان العجاج متكئا - فجلس - وقال يا  
 غلام ! اني اري لك عقلا وذهنا - احفظت القرآن ؟ قال او خفت  
 عليه الضياع حتي احفظه ؟ وحفظه الله تعالى - قال افجهت  
 القرآن ؟ قال او كان مغرقا حتي اجمعه ؟ قال افاحكمت القرآن ؟  
 قال اليس الله انزله محكما ؟ قال العجاج افاستظهرت القرآن  
 قال معاذ الله ان اجعل القرآن وراء ظهري - قال ويلك قاتلك الله  
 ماذا اقول - قال الويل لك و لقومك - قل اوعيت القرآن في  
 صدرك - قال العجاج فاقراء شيئا - فاستفتح - اعوذ بالله من  
 الشيطان الرجيم - بسم الله الرحمن الرحيم - اذا جاء نصر الله  
 والفتح و رأت الناس يخرجون من دين الله افواجا - فقال

الحجاج و يهك - انه يدخلون - فقال الغلام قد كانوا يدخلون -  
 و اما اليوم فقد صاروا يخرجون - قال و لم ذالك - قال لسوء  
 فعلك بهم -

2. In the above extract write out :—

- (a) The different senses of حراج - حارة - حارة and which is meant here?  
 (b) The double sense of the expressions taken advantage of by the lad in his conversation with حجاج.

3. Translate the following into English :—

(a) قضي الله امرا و جفا القلم  
 و في ما قضي ربنا ما ظلم  
 ففي الامر ما خان لها قضي  
 و في الحكم ما جار لها حكم  
 بدءا اولاً خلقنا  
 و قد كان ارواحنا في العدم

(b) الهي انت ذو فضل و من  
 و اني ذو خطايا فاعف عني  
 و ظني فيك يا ربي جميل  
 فحقق يا الهي حسن ظني

(c) اين الملوك و من بالارض قد عمهروا  
 قد فارقوا ما بنو فيها و ما عمهروا  
 و اصبهوا رهن قبر بالقي عملوا  
 عادوا و سبيها به من بعد ما ثروا  
 اين العساكر ما ردت و ما نغمت  
 و اين ما جمعوا فيها و ما ادخروا  
 اتا هم امر رب العرش في عجل  
 لم ينههم منه اموال و لا وزر

(d) شكوت الي وكيـح سوء حفظي  
فاوصاني الي ترك المعاصي  
لان العلم نور من اله  
و نور الله لا يعطي لعاصي

4. Re-write the poetical pieces with diacritical marks very carefully and mention their various authors in Arabic writing.

5. Translate the following into English :—

و يعجنني من الانكليز خلال - منيها انه ليس عندهم فضول  
و تكليف علي الدخيل فيهم - بل ولا علي من هو منهم - فلا  
يزورونه في غير وقت الزيارة و لا يستعبرون منه و لا يتعرضون  
لها ياتيه - فلوراوة مثلا مضطجعا علي قارعة الطريق لم يسألوا  
لبي سبب تفعل ذالك - بل ربها حسبوا ان اهل بلاده جميعا  
يضطجعون مثله و ان في ذالك مصلحة لهم - وينضم الي ذالك  
احترامهم للمرسائل فلا يفتح احداهم كتابا جاءه باسم غيره بل  
يبدل جيبه في ايصاله اليه - و اذا زارك منهم زائر فلا يهد  
يده و لا طرفه الي ما بين يديك من الصحف فاذا اراد ان  
ينظر في كتاب لم يلمسه الا بعد ان يستأذنك \*

6. Mention the ارباب of the following :—

يضطجعون — يستعبرون — يتعرضون — تكليف —  
يسألون — ايصال — زار —

### ARABIC.—SECOND PAPER.

1. Translate the following into English :—

حكى ان خسرو و هو ملك من ملوك العجم كان يحب  
المسك فكان يوما جالسا في بستانه و هو شيرين زوجته - فجاء  
حميد و معه سمكة كبرى - فأتاه بها لخسرو فاعجبته تلك السمكة  
فأعظم عليه باربعة آلاف درهم - فقالت له شيرين بئس ما فعلت

فقال ولم - قالت لانك بعد هذا اذا اعطيت احدا من حشبهك  
 هذا القدر يحتقره ويقول انها اعطاني مثل القدر الذي اعطاه  
 للصياد - وان اعطيته اقل منه يقول قد احتقرني وعطاني اقل  
 منها اعطي للصياد - فقال خسرو لقد صدقت - قال رب اغفر لي  
 ولاخي وادخلنا في رحمتك - وانت ارحم الراحمين - الهال  
 البنون زينة الحياة الدنيا - وما اصابكم من مصيبة فبها كسبت  
 ايديكم - يريد ان يخرجكم من ارضكم فيها اذا تاملون - علم  
 الانسان ما لم يعلم - الم يعلم بان الله يرزق - اذهب الي فرعون  
 انه طغي - باي - ان ربي علي كل شئ قدير - قالوا لم نك من  
 المصلين - و لم نك نطعم المسكين - الم تروا كيف خلق الله  
 سبع سموات طباقا - وجعل القمر فيهن نورا وجعل الشمس  
 سراجا - لم تقولون مالا تعملون - ان عذاب ربك لواقع - ما له  
 من دافع - وما خلقت الجن والانس الا ليعبدون - ولقد خلق  
 الله السموات والارض وما بينهما في ستة ايام - ان الله يعلم  
 غيب السموات والارض والله بصير بها تعملون - انا لله وانا  
 اليه راجعون - ان الله مع الصابرين - اللهم انت ربي وانا  
 عبدك -

2. Translate the following into Arabic giving vowel marks very carefully to the Arabic words you write :—

I saw four women. I met three men in the garden. Ahmad called upon me at my house. Give this book to Omar. Do not sit between two persons without their permission. I have made a promise and must fulfil it anyhow. He alighted from his horse. He has suffered great loss in trade. All praise is due to God the Lord of the whole world. A ruler without justice is like a river without water. He that does good to another does good to himself. Jacob sent his ten sons to buy corn in Egypt. How do you do? Do you know his name? I can speak in Arabic. He can speak in Arabic very well. The Arabic language is very difficult. Quran is in the Arabic language. Lead us to the right path. Few read Arabic well. Their father is Adam and their mother Eve. He killed Zaid. There are three oranges in my garden. Boys are

reading Arabic in the school. The time of examination is near. I went from Mecca to Madina. There are gardens of the date-tree. The Arabs are very strong. They regularly pray to God in the mosque. Fasting in the month of Ramzan is compulsory for Muhammadans. The travellers and the sick may keep fast at other time instead.

### PERSIAN.—FIRST PAPER.

1. Translate the following passages into English :—

(a) بازرگانے را هزار دینار خسارت افتاد۔ پسر را گفت نباید کہ با کسی این سخن در میان نہی۔ گفت اے پسر فرمان تراست نگویم و لیکن باید کہ موابر فائدۂ این مطلع گردانی کہ مصلحت در نہان داشتن چیست۔ گفت تا مصیبت دو نگرودن یکے نقصان مایہ و دیگر شہادت ہمسایہ۔

(d) و از جہلہ چیزہا اگر کسی خواہد کہ بہ مصر باغے سازد در (d) ہر فصل سال کہ باشد بتواند ساخت چہ ہر درخت کہ خواہد مدام حاصل توان کرد و بنشانند خواہ مثمر و معمل خواہ بے ثمر۔ و کسان باشند کہ دلال آن باشند و از ہر چہ خواہی در حال حاصل کنند و آن چنان ست کہ ایشان را درختہا در تغارہا گشتہ باشند و بہ پشت باسہا نہادہ و بسیار باسہائے ایشان باغ باشد و ازان اکثر پر بار باشد از نارنج و تونج و انار و سیب و بہ و گل و ریاحین و سپر غیہا۔

(c) و از مشاغل دولت خانہ خاص فراغ یافتہ بہ شامہ برج (c) کہ در بلندی بہ سدرۃ البنتہ بی ہم آغوش است و در استواری بہ سد سکندر ہم دوش۔ تشریف فرمایند۔ درین بیت الشرف غیر پادشاہزادہائے کام گار بخت بیدار و چندانے از ملتزمان بساط قرب ہیچ یکے بے دستوری راہ ندارد۔ حتی خدمتگاران کہ ایشان نیز بے طالب در نہی آیند و بآن خدمت قیام دارند توقف میکنند و بعضے امور پادشاہی کہ بروے

روژ افتادن آن صلاح دولت نیست و مضامین فرامین قضا  
آئین که بامروائے دور دست باید نوشت و اظهار آن مصالح  
ملکی بر فتابد با وزیر در میان می آرند -

در عهد خلافت هارون الرشید در شهر بغداد مردی بود (a)  
به چیز و پیریشان حال که سند باد حملش میگفتند و پیوسته  
بار هائے گران میبرد از مزد حملی روزی میخورد - اتفاقاً  
روزی از روزها که از اثر آفتاب آهن میگذاخت و از گرمی  
هوا جگر حربا میسوخت سند باد پشته گران برداشته میبرد  
تا اینکه بدر خانه بازرگانه رسید که آب زده و رفته بودند -  
هوائے داشت چون هوائے بهشت و در پهلوائے خانه مصطبه  
بود بزرگ بار بر آن مصطبه گذاشت که لختی بر آساید -

2. (a) Give the plurals of:—

دینار — قانده — وزیر

and the singulars of:—

امور — مضامین — فرامین — مصالح

(b) Write short notes, in Persian, on the following words:—

دینار — سدرۃ المنتهی — سدسکندر — بیت الشرف and بغداد

3. Translate the following into English:—

(a) هوس بختن از کودکی فاقه  
چنان زشت نبود که از پیر خام  
مرا می بپاید چو طفلان گریست  
از شرم کناهان نه طفلان زیست  
نکو گفت لقمان که تا زیستن  
به از سالها بر خطا زیستن  
هم از پادشاهان در کلبه زیست  
به از سود و سرمایه دادن ز دست



(b) شاه چون دید کن سه گوهر پاک  
 می شناسند گوهر از خاشاک  
 بهر ملک دو روزه بے سرو بن  
 ایمن اند از فریب چرخ کهن  
 شادمان شد ز بخت فرخ خویش  
 سود بر خاک بندگان رخ خویش  
 لیکن از پیش بینی و پے غور  
 با جگر گوشگان شد اندر شور  
 داد فرمان که هر سه بدر منیر  
 پیش گیرند رت ز پیش سریر  
 تا حد ملک شهر یار بود  
 هر که ماند گناهگار بود

(c) باد گیسوئی عروسان چمن شانه کند  
 بوئی نسوین و قرنفل بروی در اقطار  
 ژاله بر لاله فرو آمد هنگام سحر  
 راست چون عارض گلبوئی عرق کرد یار  
 باد بوئی سمن آورد و گل و سنبل و بید  
 در دکان بچه رونق بکشد عطار  
 خیری و خطایی و نیلوفر و بوستان افروز  
 نقشهائی که درو خیره بماند ابصار  
 ارغوان ریخته بر درگاه خضراء چمن  
 همچنان است که بر تخته دیوار

4. Explain the meanings of the following lines in simple Persian :—

صحبت نیکان ز جهان دور گشت  
 خوان عسل خانه زنبور گشت  
 دور نگر کز سر نا مراد می  
 پر حذر است آدمی از آدمی

معرفت از آدمیان برده اند  
و آدمیان را ز میان برده اند  
چون ملک از عهد سلیمان پریست  
آدمی آنست که اکنون پریست

5. Analyze the following couplets, using Persian terms:—

اینکه میگویند آن بهتر ز حسن  
یار ما این دارد و آن نیز هم

6. What are the خواص of the letters ت and ی? Give examples. With what other letters can ن — ز and غ be changed? Give examples.

#### PERSIAN.—SECOND PAPER.

1. Translate the following into English:—

آورده اند که شخصه خانه شخصه بکرایه ستانده بود و  
روژه چندی آنجا بسر برده ناگاه ازان خانه بیرون رفت و  
ازان شهر سفر کرده بولایت دیگر افتاده - و آنجا بمنصب  
وزارت رسید - آن فقیر که خانه بدو کرایه داده بود برخاست  
و رو به خدمت او نهاد - چون بدان شهر رسید خواست که  
ببارگاه در آید - حاجبی استاده بود - گفت چه کسی و بچه  
جرات بدین بارگاه در می آئی - گفت آشنائے وزیر ام - مرا  
آشنائی بدین گستاخی می آرد - حاجب پرسید که چه آشنائی  
داری باو - گفت وقتی خانه بکرایه بدو داده بودم حالا  
آمده ام تا نظره در کار من کند و مرا از حاضیض مذلت بذروه  
عزت و حرمت بر آرد - حاجب بخندید و گفت ای بیچاره  
تو مرد نادان بوده این سهل وسیله ایست که خانه بکرایه  
داده بودم - این را حق تصور کرده و آمده که حق گذاری  
این را رعایتی یابی - برو سر خویش گیر و مهی دیگر در  
پیش - قضا را وزیر از پس پرده این گفت و شنید استماع

سي نمود - حاجب را طلبیده گفت با که سخن میگفتي - گفت  
مردی آمده که من آشنائے وزیر ام و وقتی خانه بکرایه بدو  
داده ام من او را ملامت میکردم که این سخن مگوے و بچنین  
سهل وسیله قرب وزیر مجوے و توقع التغات و انعام مدار -  
وزیر گفت غلط کردی برو و او را بیمار که آشنائے قدیم من  
است و حقوق خدمت دارد - حاجب برفت و او را در آورد -  
وزیر او را تعظیم بسیار کرد و دلنوازی بیشمار بجا آورد -  
و احوال عیال و اطفال وے پرسید و برای هریک تحفه و تبرکے  
بزرگانه ترتیب داد و او را دوست کام و با مرادے تمام  
بهنزل و مقام باز گردانید -

نورده از مهر و فا سینه را  
سهل مدان صحبت دیرینه را  
روے مگردان از رفیقان خویش  
یاد کن از خدمت یاران پیش

2. Translate the following into Persian :—

(a) Three days after, as the Caliph Umar was praying in the mosque, Firoze entered suddenly, and stabbed him thrice with a dagger. The attendants rushed upon the assassin. He made a furious resistance, slew some, and wounded others, until one of the assailants threw his vest over him and seized him, whereupon Firoze stabbed himself and expired. Religion may have some share in prompting this act of violence, perhaps revenge for the ruin brought upon his native country. The Caliph gathered strength sufficient to finish the prayer in which he had been interrupted, for he who deserts his prayers commits sin. Being taken to his house, he languished three days without hope of recovery, and could not be prevailed upon to nominate a successor. "I cannot presume to do that," said he, "which the Prophet himself did not do."

(b) In a certain town of Persia, situated on the confines of your Majesty's dominions, there lived two brothers, one named Qasim and the other Ali Baba. Their father,

at his death, left them but a moderate fortune, which they divided equally between them. It might therefore be conjectured that their riches would have been equal, but, chance ordered it otherwise. Qasim married a wife, who very soon after her nuptial ceremonies, became heiress to a large estate, a well furnished shop, and a ware-house filled with rich merchandise. He lived very comfortably. Ali Baba, on the other hand, had taken a wife as poor as himself. He lived in a very humble house, and had no other means of gaining his livelihood, and supporting his wife and children, than by going to cut wood in a neighbouring forest, and carrying it about the town to sell on three asses, which formed the whole of his capital.

### SANSKRIT.—FIRST PAPER.

1. Translate the following into English :—

अयं निजः परो वेति गणना लघुचेतसाम् ।

उदारचरितानां तु वसुधैव कुटुम्बकम् ॥

कारुण्यं संविभागश्च यस्य श्रुत्येषु सर्वदा ।

संभवेत् स महीपालश्चैलोक्यस्यापि रत्नशे ॥

अथैवं जल्पतां तेषां चित्राङ्गदो नाम हरिणी लुब्धक-

त्रासितस्तस्मिन्नेव सरसि प्रविष्टः । अथायान्तं तं ससम्भ्रम-

सवलोक्य लघुपतनको वृक्षमारूढः । लघुपतनको मृगं सम्यक्

परिज्ञाय मन्यरकमुवाच । एह्येहि सखे मन्यरक तृषाऽर्तीयं

मृगोऽव समायातस्तस्य शब्दोऽयं न मालुषसंभव इति ।

2. In the above passage :—

(a) Parse the words कुटुम्बकम्, वृक्षन्, ससम्भ्रमम्, जल्पताम्, तस्य and नाम ।

(b) Give the roots of आरूढः, परिज्ञाय, उवाच and एहिः, and conjugate them in the third preterite (लुङ्).

(c) Decline लघुचेतस्, जल्पत्, and तद् in the nominative singular and plural numbers in all genders.

(d) Expound and name the *Samāsas* in the underlined words.

(e) Analyze the *Sandhi* in परोक्षेति, तस्मिन्नेव, अयैवम्, त्वयातः and एवमेहि ।

3. Turn into simple Sanskrit prose :—

(a) अपि मन्दत्वनापन्नो नष्टो वापीष्टदर्शनात् ।

प्रायेण प्राणिनां भूयो दुःखावेगोऽधिको भवेत् ॥

(b) प्राणा यथात्मनोऽभोष्टा भूतानामपि ते तथा ।

(c) यः सन्मानं सदा धत्ते भृत्यानां क्षितिपो ऽधिकम् ।  
वित्ताभावे ऽपि तं दृष्ट्वा ते त्यजन्ति न कर्हिचित् ॥

(d) सदाचारेषु भृत्येषु संसीदत्सु च यः प्रभुः ।  
सुखी स्यान्नरकं याति परत्रेह च सीदति ॥

4. In Question 3 translate the extract (a) into English or Hindi. State the rules of *Sandhi* in the underlined words.

5. Correct the following sentences and give reasons for your correction :—

(a) कुलालः सुन्दरं घटः क्रियते ।

(b) नीचः धनं प्राप्तत्वा दृष्यति ।

(c) दशरथस्य चतस्रः पुत्रा अभूत् ।

SANSKRIT.—SECOND PAPER.

(a) यो न सञ्चरते देशान् यो न सेवेत परिदितान् ।  
तस्य सङ्कुचिता बुद्धिर्घृतविन्दुरिवान्भसि ॥

(b) यस्तु सञ्चरते देशान् यस्तु सेवेत परिदितान् ॥  
तस्य विस्तारिता बुद्धिस्तैतविन्दुरिवान्भसि ।

(c) प्राज्ञो हि जल्पतां पुंसां श्रुत्या वाचः शुभाशुभाः ।  
गुणवद् वाक्यमादत्ते हंसः क्षीरनिवाग्भसः ॥

(d) विद्याविनयोपेतो हरति न चेतांसि कस्य मनुजस्य ।  
काञ्चनमणिसंयोगो न जनयति कस्य लोचनानन्दम् ॥

(e) का ते कान्ता कस्ते पुत्रः संसारोऽयं अतीव विचित्रः ।  
कस्य त्वं वा कुत आयातः तत्त्वं चिन्तय तदिदं भ्रातः ॥

(f) अत्रैव भारते वर्षे राजपुरं नाम नगरम् । तत्र नगरे  
सुनन्दो नाम धीवरः वसति । परं स्वभावेन जीवदयापरः ।  
एकदा दुर्भिक्षं सञ्जातम् । तस्मिन् दुर्भिक्षे सर्वो जनः अन्नस्या-  
प्राप्तौ मत्स्यमांसाहारं करोति । सुनन्दोऽपि भार्यया भक्षितः ।  
त्वमपि लोकाचारं प्रतिपालय । तेन कथितं पापकर्मणा  
अलम् ॥

(g) राजगृहे नाम नगरे मणिकारो नाम श्रेष्ठी सुवर्णकोटी-  
नामधिपतिरासीत् । एकदा भवितव्यतावशेन तस्य श्रेष्ठिनो  
गृहे सारिरीगः सञ्जातः । राजगृहराजेन भक्षितः । अयं सारि-  
रीगः सर्वत्र पुरे सञ्चरिष्यति । अतस्तस्य गृहे प्रवेशनिर्गमरोधः  
कारितः । कियता कालेनैव सारिरीगेण सर्वे गृहस्वामिप्रमुखः  
परिजना मृताः ॥

1. Translate into English extracts (a) or (b) and any four of the remaining extracts given above :—

2. (a) On the banks of the Narmada there was a town called Dharmapura. There lived a king of the name of Dharma rāja. One day as he was sitting with his ministers in his palace he heard a man crying outside. He ordered his door-keeper to see who the person was and why he was crying. The door-keeper went out and asked the man : "Who art thou and why art thou crying." The man said : "I am a Brahman. My son has been carried away by a tiger."

(b) In the town of Brahmapura there lived a Brahman of the name of Vishnu Sarma. He was a poorman and had

four sons. Vishnu Sarma died when the children were young. The boys went to the house of their maternal uncle. He did not receive his poor nephews. A friend of their father seeing them in this plight said to them "Come, I shall help you. If you acquire learning you will be happy."

(c) Thou fool, is not virtue of more worth than riches?

(d) If thy brother is in adversity assist him.

(e) If thy sister is in trouble forsake her not.

Translate into Sanskrit extracts (a) or (b) and (c), (d) and (e).

## HISTORY.

1. Explain briefly in *any one* of the following cases how the British Government in India makes provision for :—

(1) The Public health.

(2) The Relief of the Famine-stricken.

(3) Education.

2. What marked differences are noticeable between the Subahs of Akbar and the Provinces of British India?

3. Show the necessity which exists for a Supreme Central Government exercising control over the various provinces. What special matters of public concern are managed directly by the Imperial Government.

4. What causes and events led to the downfall of—

either (1) The Mahratta Confederacy,

or (2) The Sikh power.

Notice some of the chief battles which were fought between them and the British.

5. What were the causes of the ill-feeling between England and Spain in the reign of Elizabeth? Relate the events that occurred in England which led Philip of Spain to despatch the Spanish Armada.

6. Relate briefly the circumstances and events which caused the war between France and England after the outbreak of the French Revolution.

7. Explain clearly the meaning of the following terms :—

(1) The Subsidiary System.

(2) Ship-money.

(3) The New Model.

(4) The Anti-Corn-Law League.

8. State who the following persons were, and note very briefly the historical events with which their names are connected :—

Asoka, Haider Ali, the Duke of Wellington, Lord Palmerston

9. When and between whom were the following battles fought? Add a short note explaining the historical importance of each victory.

Baxar, Wandewash, the battle of the Boyne, the battle of the Nile.

## GEOGRAPHY.

1. (a) Distinguish between Artificial and natural Geographical Boundries.  
 (b) What are the Prime Meridians of Longitude used in Europe ; Can any other Prime Meridian be used ?  
 (c) Define :—  
 Estuary, Archipelago, Glacier.
2. Name the six principal articles of import into England, and the six principal articles of export. Name any country from or to which each comes or goes.
3. Give some account of Guiana, stating its position, climate and by whom governed.
4. Name the chief harbours of Australia and the chief town on each.
5. What are the chief Islands in the Malay Archipelago? To what governments does each belong?
6. What is an alluvial plain? Name some of the chief alluvial plains of the world.
7. Name any parts of the world where the level of the land relatively to the sea is changing. Explain how it is that the surface soil of Bengal is composed to a great depth of mud and sand.
8. What are earthquakes and where are they most common? State why it is that no serious effects from earthquakes are felt in alluvial plains.
9. Draw a map of Africa and show in it :—  
 Khartum, Delagoa Bay, Pretoria, Kumassi, Sierra Leone, Gambia, the Atlas Mountains and the rivers Zambesi and Niger.

## GEOMETRICAL DRAWING.

*Note.*—Answer to be in firm ink lines. Leave all lines of construction in pencil, and do not rub out anything.

1. Construct a right-angled triangle with hypotenuse of 3 inches, and an acute angle of  $37\frac{1}{2}^{\circ}$ .
2. Describe three circles, each touching the other two, their radii being  $\frac{1}{2}$ , 1 and  $1\frac{1}{2}$  inch respectively.
3. Find the mean proportion, between two lines, 3 inches and 2.25 inches long.
4. Construct a regular pentagon with 2 inch side, and inscribe five semi-circles, each one touching two sides of the pentagon.

## ELEMENTARY PHYSICS AND CHEMISTRY.

1. Explain the construction and use of a thermometer.
2. Describe an experiment to show that heat causes a metal bar to expand.



3. What is meant by *the pressure of the air*? How is this pressure measured? Describe an experiment to show that the boiling point of water depends upon the pressure.
4. What is meant by refraction or (bending) of light? Describe any experiments to illustrate refraction.
5. Describe carefully a Grove's battery or any other arrangement you have seen in use for producing an electric current.
6. Describe an experiment to show that when a candle burns nothing is lost.
7. How can hydrogen be prepared? Describe any methods you have seen. State some of the properties of hydrogen.
8. Describe the appearance of the following substances and name some of their properties and uses:—CARBON, SILVER, PHOSPHORUS, OXIDE OF MERCURY, COPPER SULPHATE.
9. How could you distinguish between—  
 (a) Carbonic acid gas and oxygen,  
 (b) Silver and lead,  
 (c) Nitric Acid and a solution of Caustic Potash?
10. What weight of oxide of mercury is required to produce 21 grains of oxygen? [The combining weight of mercury is 200 and that of oxygen 16].

## BOOK-KEEPING.

1. What is Book-Keeping? What are the two objects aimed at in every system of Book-Keeping.
  2. Write up the Cash Book for the following entries:—
- |                |                                  | £  | s. | d. |
|----------------|----------------------------------|----|----|----|
| June 1st, 1890 | Balance in hand at this date ... | 47 | 17 | 0  |
| " 13th, "      | Received from R. James ...       | 27 | 5  | 3  |
| " " "          | Paid R. Robinson ...             | 15 | 10 | 0  |
| " 15th, "      | " House expenses ...             | 12 | 11 | 6  |
| " " "          | Received from F. J. Smith ...    | 24 | 17 | 6  |
| " " "          | Paid for Sunday expenses ...     | 10 | 5  | 0  |
| " " "          | " R. James ...                   | 16 | 3  | 6  |
- Balance the Cash Book and bring down the amount of cash in hand.
3. What is understood by the signs Dr. and Cr.  
 (i) What would a Dr. balance of an account imply?  
 (ii) How is it effected?
  4. How many different classes of accounts are there? Name them. Give 3 examples of each.
  5. What account shews the net profits?
  6. What is understood by the term Capital?

Write up the following Capital Account of James Brown :—

October 1st, 1890	Balance of Capital this day	... £ 1,000
" 15th, "	Paid in the further some of	... £ 1,300
" 30th, "	Withdrew	... £ 1,000
December 31st, "	Loss on business for the quarter	... £ 100

Complete the Account and bring down the balance.

7. Record the following transactions of Henry Robinson, and finally close the books :—

		£	s.	d.
January 2nd, 1892	Received from A rent in advance	50	0	0
" " "	" " B " "	125	0	0
" " "	" " C " "	250	0	0
" 12th, "	Paid into Bank	300	0	0
" 15th, "	" rent of Portland estate by cheque	12	10	0
" 24th, "	Drew Cash from Bank	25	0	0
" 31st, "	Paid attendant	3	6	8
February 19th, "	" H. Williams, on account of repairs	4	14	0
March 31st, "	" Attendant	6	13	4

Sent out the following accounts for rents due this day but paid by the parties in advance on 2nd January, 1892.

A	...	50	0	0
B	...	125	0	0
C	...	200	0	0

The balance of Capital of Henry Robinson on 1st January, 1892, was £1,000.

Ascertain from the above transactions whether his Capital increased or decreased on 1st April, 1892, and by what amount.

8. What is the difference between the "Continental" and the English method of Closing the Ledger?

## POLITICAL ECONOMY.

1. What is meant by Wealth? Distinguish Wealth from Capital.
2. Explain briefly the chief causes on which the productiveness of labour depends.

State the laws of "Increasing" and "Diminishing" Returns.

3. What is rent? State the law of rent. How does agricultural rent differ from the rent of a house?

4. Define interest. What determines the average rate of interest at a given time and place? Give illustrations.

5. Mention cases in which the value of a commodity is *not* determined by the cost of production. How would you then account for its value?

6. What led to the universal use of money? How comes it that a rupee is able to buy goods?

7. Examine the statement :—The importation of goods which we could produce at home is an injury to the nation and an evil to be deplored.

8. What is the value received by the people in exchange for the taxes they pay?

## ENTRANCE AND SCHOOL FINAL EXAMINATIONS, 1902.

### ENGLISH.—FIRST PAPER.

[The attention of the candidates is directed to the fact that questions 1, 4 and 7 carry a total maximum of 20 marks out of a total of 50 for the whole paper.

Candidates are also requested to note that questions 9 (a) and 9 (b) are alternative: both of them must not be answered.]

#### *Section A.*

1. Express in your own words the meaning of each sentence in the following passage :—

In every path of practical activity, they have gone even with the best. There is no secret of war, in which they have not shown mastery. The steam-chamber of Watt, the Locomotive of Stephenson, the cotton-mule of Roberts, perform the labour of the world. There is no department of literature, of science or of useful art, in which they have not produced a first-rate book. It is England, whose opinion is waited for on the merit of a new invention, an improved science.

2. (a) Explain the following passage :—

But at his haughty challenge  
A sullen murmur ran,  
Mingled of wrath, and shame, and dread,  
Along the glittering van.  
There lacked not men of prowess,  
Nor men of lordly race;  
For all Etruria's noblest  
Were round the fatal place.

(b) Describe clearly the *position* of the bridge defended by Horatius and his companions.

3. Explain the following :—

(a) The proud mart of Pisae. Queen of the western waves.

(b) A gallant feat of arms.

- (c) Horatius right deftly turned the blow.  
 (d) The loud laugh that spoke the vacant mind.  
 (e) Every rood of ground maintained its man.

*Section B.*

4. Re-write the following in simple prose, taking care to express each idea fully and accurately :—

I saw a king go riding by  
 On his white horse at break of day,  
 And oh, he rode so cheerily,  
 With all his troops in brave array.  
 "Whatever foe he shall assail,  
 This king," said I, "must sure prevail"  
 \* \* \* \*

I saw a king go riding by  
 With silent men on either side,  
 And oh, he rode so wearily.  
 "For sure, "he missed his bride."  
 Said one, "The Scots our King have sold  
 To his enemies, for sake of gold."

5. Explain the following passage :—

E'en now the devastation is begun,  
 And half the business of destruction done ;  
 E'en now, methinks, as pond'ring here I stand,  
 I see the rural virtues leave the land.  
 Down where yon anchoring vessel spreads the sail,  
 That idly waiting flaps with every gale.  
 Downward they move a melancholy band,  
 Pass from the shore and darken all the strand.

6. Describe the village of Auburn as it was before its desertion.

*Section C.*

7. Explain the following :—

- (a) Disease is often a product of filth.  
 (b) He was quite master of the situation.  
 (c) The man that hesitates is lost.  
 (d) His motive was an unworthy one.  
 (e) He was persuaded, against his better judgment, to give up the enterprise.

8. Explain the following passages. From which of the 'Tales' are they taken and to what events do they refer?

(a) So these two wicked daughters, as if they strove to exceed each other in cruelty to their old father who had been so good to them, by little and little would have abated him of all his train.

(b) As I was fond of retirement and deep study, I commonly left the management of my state affairs to your uncle, my false brother (for so indeed he proved.) I, neglecting all worldly ends, buried among my books, did dedicate my whole time to the bettering of my mind.

9 (a) i.—What persons are referred to in the following passage? Explain the words and phrases printed in italics.

“Sir Robert Melville,” she at length said, “this *scroll* advises me to *submit myself to necessity* and to *subscribe the deeds* these hard men have brought with them as one who gives to the *natural fear* inspired by the threats of rebels and murderers.”

ii.—Explain the following passage :—

“Art hath no enemy unless the ignorant,” said the mortified doctor ; veiling, however, his remark under the Latin version.

iii.—Who were Mary’s attendants at Lochleven ? Mention some characteristics of each of them.

9 (b) i.—What persons are referred to in the following passage ? Explain the words and phrases printed in italics.

‘And this we do, praying you heartily to honour and make use of his skill ; not only that we may *do service* to thy *worth and valour*, but that we may bring the controversy which is at present between us at an end, either by *honourable agreement*, or by *open trial with our weapons*, in a *fair field*.’

ii.—Explain the following passage :—

The exhortation was echoes from post to post ; for it was the duty of the sentinels to raise the cry from time to time upon their periodical watch, that the host of the Crusaders might always have in their remembrance the purpose of their being in arms.

iii.—Give short account of the combat between Sir Kenneth and Conrado.

## ENGLISH GRAMMAR.—SECOND PAPER.

### Section D.

I. Parse every word in—

And near, the best of the alarming drum

Roused up the soldier ere the morning star.

2. Write down the past tense and past participle of the verbs: light, compel, spoil, swell, smite, steal, climb, forget, choose, arise.

3. Write sentences containing "that" and "but" as Relative Pronouns.

Give instance of *four* Distributive Adjectives.

4. Explain the force of the prefixes and suffixes in the following words and state, where necessary, the full meaning of the complete word: displeasure, impious, forswear, bracelet, enrich, gainsay, inmate, overhear, undersell, withhold, safeguard, unmanliness.

### Section E.

5. (a) "An Adverb never qualifies a Noun or a Pronoun." Name some apparent exceptions to this rule, and account for them by explaining your examples."

(b) "*The sooner* rain falls, *the better* it will be for the country."

Parse the words in italics.

6. (a) I will wait *for* you *till* Thursday or *till* you return; *for* I promised to do so.

Explain what parts of speech the words in italics are.

(b) Give examples, by writing sentences, of the uses of the Conjunctions *as*, *than*, *whether*, *provided* *that*, *too*, *while*, stating what kind of Conjunction each is.

7. (a) Compose sentences containing—

(i) An Adverbial Clause of Time.

(ii) *What*, introducing an Indirect Question.

(iii) *So that*, implying Purpose.

(iv) *As long as*.

(v) *Either*, as a Conjunction.

(b) Show by examples the uses of the Prepositions *towards*, *after*, *as to*; and make the last-mentioned govern a clause.

## Section F.

8. Analyse, in tabular form :—

It is a remarkable fact that when the Duke was passing through Belgium in the preceding summer of 1814, he particularly noticed the strength of the position of Waterloo, stating to those who were with him, that if it should ever be his fate to fight a battle in that quarter for the protection of Brussels, he should endeavour to do so in that position.

9. Rewrite in the Indirect :—

Jason asked, "Is it true, what the heroes tell me, that I am heir of that fair land?"

"And what good would it be," answered Cheiron, "if you were?"

"I would take it and keep it."

"A strong man has taken it and kept it long. Are you stronger than Pelias?"

"I can try my strength with his," said Jason.

But Cheiron said: "You have many a danger to go through before you rule Iolcos. Promise me two things: speak harshly to no one whom you may meet, and stand by the word which you shall speak."

## URDU.—THIRD PAPER.

1. Translate into English :—

(g) پلوٹے اور دوسرے جانوروں کے جو حقوق ہم لوگ پڑھیں (g)  
اب میں اسکا بیان کیا چاہتا ہوں - تعجب کی بات ہے کہ  
اگرچہ وہ ہر روز ہمارے پاس رہتے ہیں تو بھی ہم انکی  
حالت پوری پوری نہیں جانتے ہیں - کوئی کوئی انہیں سے  
زیادہ تو ہمارے پاس رہا کرتے ہیں اور دوستوں کا کام دیتے  
ہیں۔ ہر چند کہ وہ بول نہیں سکتے تاہم انہیں اب ایسی  
محبت ہے جو آدمی زان میں بہت کم پائی جاتی ہے ان  
جانوروں پر جتنی مہربانی کرنی چاہئے اتنی اکثر لوگ نہیں

کرتے ہیں۔ کیونکہ سب آدمی یہہ نہیں جانتے کہ وہ ہمارے کتنے کام کے ہیں۔ جو جانور ہمارے آس پاس دیکھائی دیتے ہیں جیسے چھپکلی جو ہمارے دیواروں پر اکثر دیکھی جاتی ہیں یا گلہری جو پیڑوں پر رہا کرتی ہیں یا چھگادڑ۔ پرند اور کبوترے مکورے جو تکلیف دہ نہیں ہوتے ان سب پر ہمارے مہربان ہونا چاہئے۔ خاص کر ان جانوروں پر جو ہمارے پیارے معلوم ہوتے ہیں اور جنکو ہم پالتے ہیں انپر زیادہ تر مہربانی کرنی چاہئے۔ ہمارے ہر روز انکی خبر گیری کرنی چاہئے اور انکے آرام کی فکر رکھنی چاہئے۔ اگر ہم ایسا کریں تو اُسکے بدلے میں وہ ہمارے ساتھ ضرور ہی گاڑھی دوستی بوٹینگے۔ اگر ایسا نہو تو بھی ہمارے مہربانی کرنیکا بدلہ تو ضرور ہی ملیگا۔ انپر مہربانی کرنے سے ہم میں مہربانی کرنیکی خصلت پیدا ہوگی اور ہم آدمزاد پر زیادہ تر مہربانی کرنے لگیں گے۔ جان بوجھ کر ان جانوروں کو بے سبب تکلیف نہیں پہونچانا چاہئے۔ ہمارے ہی طرح اُنکو بھی خدا نے بنایا ہے۔ جیسا برتاؤ ہم اُسکے خلق کے ساتھ کریں گے ویسا ہی پھل پائیں گے \*۔

مشہور رانی درگاوتی مہوبا کے راجہ چندیل کی بیٹی (h) بہت ہی خوبصورت اور خوب سیرت تھی۔ جبلاپور کے پاس گڑھ منڈلے کا راجہ دلیپت شاہ اُس سے بیاہ کرنا چاہتا تھا۔ لیکن راجپوت لوگ ایسی شادی کو اچھی نہیں سمجھتے تھے۔ تاہم درگاوتی کے باپ نے گڑھ منڈلے کے راجہ سے پہلے اپنی پشت پناہی کا وعدہ لیکر اپنی لڑکی کی اُس سے شادی کر دی دلیپت شاہ تھوڑے دنوں میں مر گیا اور درگاوتی تخت پر بیٹھ گئی۔ سنہ ۱۵۶۳ء میں کڑا مانک پور کے نواب آصف خاں نے گڑھ منڈلے پر چڑھائی کی تب رانی درگاوتی پندرہ سو ہاتھی اور آٹھ ہزار سوار اور پیادے لیکر اُسکے



ساتھ لڑنے کو نکلی۔ اُسوقت رانی نے زرہ بکتر پہن سو  
 پر تاج شاہی رکھ کر اور تیرو کھان پاس رکھ کر ہاتھی پر سے  
 سپاہیوں کو حکم دیتی تھی۔ سپاہیوں نے اوس بڑی دلیری  
 سے مغل لوگوں کو دو بار شکست دی اور تیسری بار رانی  
 درگاوتی کے لڑکے نے اُنکو پیچھے ہٹا دیا لیکن سگار گڑھ کی  
 جنگ میں ہار کر گڑھ منقلے کے لوت آئی اور یہاں کسی  
 کوہ کے کھومین چھپ رہی آصف خان ہارا تھا لیکن جب  
 اُسکی توپیں آ پھونچیں تب رانی نے یہن دیکھ کر کہ اب  
 دشمن کے ہاتھ سے بچنے کی کوئی صورت نہیں ہے مہات سے  
 کٹاری ٹیکر اپنے پیت میں مار لی \*

(i.)

पालतू और दूसरे जीवों की ओर जो हमारा कर्तव्य है  
 अब मैं उसका वर्णन किया चाहता हूँ। आश्चर्य की बात  
 है कि यद्यपि वे प्रतिदिन हमारे निकट रहते हैं तो भी  
 उनकी दशा हम पूरी नहीं जानते। कोई कोई उनमें से  
 बहुधा हमारे समीप रहते हैं और मित्र के समान काम  
 देते हैं। यद्यपि वे बोल नहीं सकते तो भी उनमें एक  
 प्रकार का ऐसा प्रेम है जो मनुष्यों में बहुत कम पाया  
 जाता है। इन जीवों पर नितनी दया करना उचित है  
 लोग उतनी नहीं करते क्योंकि सब मनुष्य यह नहीं जानते  
 कि वे हमारे कितने काम के हैं। जो जीव हमारे आस  
 पास दिखाई देते हैं जैसे छिपकली जो हमारी दीवारों पर  
 बहुधा देखने में आती है वा गिलहरी जो वृक्षों पर रहती  
 है वा चमगीदड़ पक्षी या कीड़े मकोड़े जो दुःखदाई नहीं  
 होते उन सब पर हम को दया रखनी चाहिये। विशेष कर  
 उन जीवों पर जो हम को प्रिय लगते हैं। और जिनको

हम पालते हैं अधिक दया करनी उचित है । हम बेर प्रतिदिन उनकी सुध लेनी चाहिये और उनके सुख का ध्यान रखना चाहिये । यदि हम ऐसा करें तो उसके बदले में वे हमारे साथ अवश्य गाढ़ी प्रीति करेंगे । यदि ऐसा न हो तो भी दया का बदला हमको अवश्य मिलेगा । उनके ऊपर दया करने से हमारा स्वभाव दयालु हो जायगा और हम मनुष्यों पर अधिक दया करने लगेंगे । जान बूझ कर बिना कारण कभी इन जीवों को क्लेश पहुंचाना नहीं चाहिये वे भी हमारे समान परमेश्वर से बनाये गये हैं । जैसा बर्ताव हम उसकी सृष्टि के साथ करेंगे वैसाही फल पावेंगे ॥

## H.

प्रसिद्ध रानी दुर्गावती सहोबे के राजा चन्देल की कन्या बहुत सुन्दर और गुणवान थी । जबलपुर के पास गढ़मंडले का राजा दलपतिशाह इस से ब्याह करना चाहता था । परन्तु राजपूत लोग ऐसा ब्याह योग्य नहीं समझते थे । तथापि दुर्गावती के पिता ने गढ़मंडले के राजा से पहिले अपनी रक्षा का बचन ले लड़की उसे ब्याह दी । दलपति-शाह थोड़े दिन पीछे मर गया और दुर्गावती राजासन पर बैठ गई सन् १५६४ ई० में कड़ा सानिकपुर के नवाब आसिफ खां ने गढ़मंडले पर चढ़ाई की । तब रानी दुर्गावती १५०० हाथी और ८००० सवार और प्यादे लेकर उसके साथ लड़ने को निकली । इस समय रानी जिरहवस्त्र पहिन सिर पर मुकुट धर और धनुष बान पास रख के हाथी पर से सिपाहियों को आज्ञा देती थी । सिपाहियों ने इस समय शूरता से मुगल लोगों को दो बार पराजित किया । और

तीसरी बार रानी दुर्गावती के लड़के ने उनको पीछे हटा दिया। परन्तु सिगाड़गढ़ के लड़ाई में हार कर गढ़मंडला को लौट आई और यहां किसी कन्दरा में छिप रही। आसिफ़ खां हारा था परन्तु जब उसकी तोपें आ पहुंची तब रानी ने यह देख कर कि अवशुत्रु के हाथसे बचने का कोई उपाय नहीं है सहावत के हाथ से कटारी लेकर अपने पेट में सार ली ॥

## ARITHMETIC AND ALGEBRA.

### FIRST PAPER.

(N. B.—Only ten questions have to be answered.)

1. Find the G. C. M. and also the L. C. M. of 49383 and 142569.

2. Simplify  $\frac{1.5}{.075} \times \frac{3\frac{1}{2}}{1\frac{1}{2}} \times \frac{1.875}{2.1} \times \frac{3.5}{3.75} - .16$ .

3. Find by practice the value of 246½ maunds of sugar at Rs. 13-5 as. 4 pies per maund.

4. A and B have between them 132 horses; 25 of A's = 142857 of B's. How many had each of them?

5. Six men and five boys can do a piece of work in 7 days: they work at it till they have completed  $\frac{1}{4}$  of it; then two of the men leave and two more boys come. How long will the work be in hand, if a boy does half as much work as a man?

6. If I lend a friend Rs. 1,250 at 4 per cent. simple interest and tell him to keep it until principal and interest amount to Rs. 1,666-10-8, how long will he have it?

7. Simplify (i)  $\frac{a^5 - a^4b - ab^4 + b^5}{a^4 - a^3b - a^2b^2 + ab^3}$

and (ii)  $\frac{a^3 + b^3 + c^3 - 3abc}{(a-b)^2 + (b-c)^2 + (c-a)^2}$

8. Extract the square root of  $16x^3(x-2)-8x(1-3x)+1$ .

9. Solve  $\frac{4x+17}{x+4} - \frac{5x+36}{x+7} = \frac{2x+7}{x+3} - \frac{3x+19}{x+6}$ .

10. Find  $x$  and  $y$  from the two questions.

$$a(x+y) + b(x-y) = 2a$$

$$y(a+b) - x(a-b) = 2b.$$

11. I wished to give a certain number of old men 1 anna 8 pies each, and I found that I had not money enough in my purse by 11 annas; so I gave them 1 anna 5 pies each, and then I had money enough and 3 annas 3 pies to spare. Find the number of old men.

12. If  $a : b = c : d$ , prove that

$$a^2b - 3ac^2 : b^3 - 3ad^2 = a^2 + 5c^2 : b^2 + 5d^2.$$

### MATHEMATICS.—SECOND PAPER.

1. (a) Equal triangles on the same base, and on the same side of it, are between the same parallels.

(b) The straight line which joins the middle points of two sides of a triangle is parallel to the third side.

2. (a) Describe a parallelogram that shall be equal to a given triangle, and have one of its angles equal to a given angle.

(b) Construct a parallelogram which shall have the same area and perimeter as a given triangle.

3. Describe a square that shall be equal to a given rectilineal figure.

4. (a) The opposite angles of any quadrilateral inscribed in a circle are together equal to two right angles.

(b) A triangle is inscribed in a circle; shew that the sum of the angles in the three segments exterior to the triangle is equal to four right angles.

5. Inscribe a square in a given circle.

6. (a) The perimeter of one square field is 480 feet, and of another 1,400 feet. Find the perimeter of a third which is equal in area to the other two.
- (b) The area of an insosceles triangle is 168 square feet, and its base is 14 feet; find its equal sides.
7. (a) The diagonals of a parallelogram are 34 feet and 24 feet, and one side 25 feet; find its area.
- (b) A wire may be so bent as to enclose a square whose area is 121 square inches. If the same wire were bent into the form of a circle, what would its area be? [ $\pi=3\frac{1}{2}$ ]
8. The parallel sides of a trapezium are 60 and 90 yards, and the other sides are 26 and 28 yards; find its area.
9. Draw a plan and calculate the area of a field from the following field-book. the lengths being expressed in links

	to A	
	1,000	
30	500	
From	C	range to A
	to C	
	600	
	450	50
0	300	0
50	150	
From	B	turn left
	to B	
	800	
	500	40
	300	60
From	A	go East

### ARABIC.—FIRST PAPER.

1. Translate the following into English:—

(a) لها سلم فبجاح بن سلمة الي موسى بن عبد الله الاصفهانى  
ليستأدى ما عليه من الاصول عاقبه فتلف في مطالبتة-فاجتمع

بعض الرؤساء بابي العيذاء فقال لهما عندك من خبر نجاح -  
فقال ابو العيذاء فوكزه موسي فقضي عليه - فبلغت كلمته موسي -  
ثم لقي ابا العيذاء في الطريق فهدده - فقال له ابو العيذاء  
اتريد ان تقتلني كما قتلت نفسك بالامس \*

صلي اعرابي مع قوم فقراً الاسام قل ارأيتم ان اهلكني (b)  
الله و من معي - فقال الاعرابي اهلك الله و حدك اي شي كان  
من الذين معك قطع القوم الصلوة من شدة الضحك \*

فلما سمع الخليفة من هذه الابيات قال والله طيب - و (c)  
الله مليح الله درك يا نعم - ما افصح لسانك و ما اوضح بيانك -  
ولم يزاكوا في فرح و سرور الي نصف الليل - ثم قالت اخت الخليفة  
اسمع يا امير المؤمنين اني رأيت حكاية في الكتب عن  
بعض ارباب الهرايب - قال الخليفة و ما تلك الحكايتة -  
فكانت له اخته اسمع يا امير المؤمنين انه كان يهدينة  
الكوفة صبي يسمى نعمة بن الربيع و كان له جارية يحبها و  
تعبه و كانت قد تربت معه في قرش واحد - فلما بلغا و  
تمكن حبها من بعضها رماها الدهر بتكايتها و جار  
عليها الزمان بافاته و حكم عليها بالفراق و تحيلت  
عليها الوشاة حتي خرجت من داره و اخذوها سرقة من مكانه \*

2. Re-write, very carefully, with diacritical marks, the underlined words and expressions in the above extracts and explain them clearly.

3. Translate the following into English :-

اتاني ان هنداً حل صخر \* دعت دركا و بشرت الهندوا  
فان تغدر بهزة حين ولي \* مع الشهداء محتسبا شهيدا  
وانا قد قتلنا يوم بدر \* ابا جهل و عتبة و الوليد

وَقَتَلْنَا سِرَاطَ النَّاسِ طَرَا \* وَغَنَمْنَا الْوَلَايِدَ وَالْعَبِيدَا  
وَشَيْبَةَ قَدْ قَتَلْنَا يَوْمَ ذَاكُم \* عَلَيَّ إِثْوَابُهُ عَاقِبَا جَسِيدَا  
قَبْرًا مِنْ جَهَنَّمَ شَرُّ دَار \* عَلَيْهَا لَمْ يَجِدْ عَنْهَا مَعِيدَا  
وَمَا سِيَانُ مَنْ هُوَ فِي جَهَنَّمَ \* يَكُونُ شَرَابُهُ فِيهَا صَدِيدَا  
وَمَنْ هُوَ فِي الْجَنَّةِ يَذُرُ فِيهَا \* عَلَيْهِ الرُّزْقُ مَغْنَمًا حَبِيدَا

4. Re-write the poetical extract with diacritical marks clearly as you possibly can.

5. Write out the allusions referred to therein.

6. Analyse the following:—

تَقَامُ عَيْنُكَ وَالْمُظْلُومُ مَذْتَبُهُ \* يَدْعُو عَلَيْكَ وَعَيْنُ اللَّهِ لَمْ تَقْمُ

7. Write out any six Arabic lines, that are not in this question paper, from your memory and translate them into English. You have to supply them with diacritical marks.

#### ARABIC.—SECOND PAPER.

1. Translate into English:—

أَنْ غُلَامًا كَانَ الْجَهَنَّمُ أَنْصَادَتُ رَضِيَ اللَّهُ عَنْهُ صَبَّ الْبَاءُ عَلَيَّ  
يَدِي صَيْدَةً يَوْمَ كَرَمِ الْأَيَّامِ نَمَسْتُ الْإِنَاءَ مِنْ يَدِي فِي الْبَاشَتِ  
قَطَارُ الْبَاءِ عَائِي ثَوْبُهُ فَخَاطَرُ إِلَيْهِ أَنْظَرْتُ مَأْمُورَةً فَقَالَ الْغَلَامُ يَا  
مَوْلَايَ رَأَيْتُكَ مَيْسَ الْفَرِيخِ قَالَ جَهَنَّمُ كَفَلْتُمْ خِيَاطِي فَقَالَ الْغَلَامُ  
وَأَنْتَ ذِينَ عَنِ النَّاسِ قَالَ جَهَنَّمُ عَفَرْتُ عَنْكَ فَقَالَ الْغَلَامُ  
وَاللَّهُ يَحِبُّ الْبُحْسَنِينَ قَالَ جَهَنَّمُ الْإِدْبَ فَاثَتْ حَرَارُجُهُ إِلَهُ  
تَعَالَى ذَاكَ الْفَ دِينَارٍ مِنْ مَائِي وَذَاكَ مِنْ بَعْضِ كَرَامَاتِهِمْ وَ  
حَسَنُ اخْلَاقِهِمْ - انْتَفَاعٌ ذُنِي (أَنْ كَانَ جَانِدًا - هَتُوَ عَائِلٌ خَيْرٌ  
مِنْ صَدِيقٍ جَانِلٍ - انْتَفَاعٌ أَشَدُّ مِنَ الْقَتْلِ - السَّجِي مَائِي وَ  
الْإِتِّهَامُ مِنَ اللَّهِ تَعَالَى - زِينَةُ الْبَرِّ حَسَنُ الْخُلُقِ وَالْإِدْبَ -  
سَلَامَةُ الْإِنْسَانِ بِسَلَامَةِ الْإِنْسَانِ - سُرُورُ الْإِنْسَانِ مِنَ الْإِنْسَانِ وَ  
سُرُورُ الْمَلَكِ مِنَ الْإِنْسَانِ - رَاحَةُ الْجَسْمِ فِي قِلَّةِ الطَّعَامِ - رَحِمَ  
اللَّهُ مَنْ دَدَنِي إِلَيَّ حَيَوِي - أَكَلُ الْعَدْلِ وَصَدَقَ الْهَقْلُ

کلاهما علامتان لصاحب الکمال - الجنس الی الجنس یهمل -  
 ان الیهودیین کانوا من اخوان الشیاطین الھیاء جزء من  
 الایمان - خذ العفو أمر بالمعروف و اعرض عن العیادین - اذا  
 جاء الحق و هتک الباطل - الجنة تحت اقدام امهاتکم - ان  
 الحسنات ینتھبن السیئات - من حفر بئراً لاخیه فقد وقع فیه -  
 حب الدنیا راس کل خطیئة - حسن الادب یستقر قبض النسب \*

2. Translate into Arabic with diacritical marks:—

People take to the customs of their rulers. Love of a thing makes one blind and deaf. Die before you die. I saw four women and three men passing on the road. The learned are the successors of prophets. Ahmad and Omar are fast friends. Fear not scandal in the way of God. He is not of us who is not kind to the young and respectful to the aged. A tyrant injures none but himself. I travelled from Basrah to Baalbak. He who is not thankful to man cannot be grateful to God. Zaimab is Omar's sister and wife of Ahmad. Ibrahim was the father of the Arabs. He who does not forgive shall not be forgiven. Protect yourself from the fire of hell. He who comprehends self comprehends God.

### PERSIAN.—FIRST PAPER.

I.—Give the meanings of the following words in English and explain their constructions:—

بازرگان - دشنام - دشرار - لاجرم - بربط - گونز - سپهرغم -  
 پارسا - کربابه - دیرلاخ

II.—Translate the following passage into English:—

(a) مصیبت از هر که صادر شود ناپسندست و از علمانا خوب تر که حلم سلاح جنگ شیطان است - رخدارند را چون به اسیری برند شر مساری بیش برد \*

(b) و آنجا کاروانسرای دایم کسی دارالوزیر میفتند - در آنجا قصب فر شند و دیگر دیبج - و در اشکوب زیر خیاطان نشینند و در بالائے رفا ان - از قیم آن پرسیدم که اجرة این یتیم



چند سنت گفت هر سال بست هزار دینار مغربی بود - اما این ساعت گوشه ازان خراب شده عبارت میکنند هر ماه یک هزار دینار حاصل دوازده هزار دینار سال و گفتند که درین شهر بزرگتر ازین نیست و بهقدار این دو بیست خان باشد

اکثر اوقات در مهمات ضروریه به پادشاهان و پادشاهان (c) بخت بیدار و امرای عالی مقدار - بخط نوازش نهط فرمان می نویسند و گاهی بر عنوان منشورے که منشیان عطاران آثار به نوئینان والاقتدار نگاشته باشند سطرے چند تحریر میفرمایند \*

III. Write down the meanings of the following passages in simple Persian:—

بجلائل امور و زدانی و بذائل شیون سلطانی بعنایت بی غایت سبحانی - انسان از سائر موجودات بعقل و کاردانی مختص گشته محل تکلیف او اسرو نواهی و مورد باز پرس الهی گردیده - و چنان مخلوقی که انهر دج صنائع غیر متناهی است و مراة اسرار کونی و الهی ببازی و برای بازی نیا فریده اند \*

IV.—Write down in Persian what you know about امیر بهشت بهشت and his book خسرو

V.—Translate the following couplets into English and explain any idioms contained therein:—

بزرگے هنرمند آفاق بود \* غلامش نکوهیده اخلاق بود  
ازین خفرقے موئے بسالیده \* بدے سرکه در روے مآلیده  
چو نعبانش آلوده دندان بزهر \* گرو برده از زشت رویان شهر  
مدامش بروے آب چشم سبل \* دویدے و بوئے پیاز از بغل  
گرے وقت پختن برابر و زده \* چو پختند باخواجه زانوزده  
مدام بدنان خوردنش همنفس \* وگر مردے آبی نداده به کس  
ندگفت اندرو کار کردے ته چوب \* شبوروز ازو خانه در کند و کوب  
گه خار و خس در ره انداختے \* گه ماکیان دو چه انداختے

VI.—Explain in English or Persian the meanings of the following couplets:—

زتابند یاقوت ورخشنده لعل \* خرامنده را آتشین گشت فعل  
به تو نقش تو زان نهودم نخست \* که تا نقش من بر تو گرد در ست  
زنان را ترازو بود سنگ زن \* بود سنگ مردان ترازو شکن  
سام که سیمرغ پسر گیر داشت \* بود جوان گرچه پسر پیر داشت  
روز از آنجا که فراغ رسید \* بان سلیهمان به چراغ رسید

VII.—Translate into English:—

برخیز تا طریق تکلف رها کنیم \* دکان معرفت بد و جوهر بها کنیم  
هفتاد ذلت از نظر خلق در حجاب \* بهتر ز طاعتی که بروی زیان کنیم  
آن کو بغیر سابقه چندین نواخت کرد \* مکن بود که عفو کند گز خطا کنیم  
گفتم نگشت کام دلم حاصل از لبمت \* گفتا تو صبر کن که مراد تو روا کنیم  
حافظ وفا نهی کند ایام ست عهد \* این پنج روز عمر بیا تا وفا کنیم

VIII.—Define مضارع. How is the مضارع of an Infinitive formed? Give examples.

### PERSIAN.—SECOND PAPER.

Translate the following into English:—

(a) آورده اند که عربی بینابان نشین به شهر بغداد در آمد  
دکان نانوائی دید که گرد ها چون قرص قهر از افق منیر طلوع  
کرده - عرب بیچاره که ببوی نان رصق حیات یافتی - چون  
روے نان دید جبّه صبر چاک زد و پیش نانوا آمده گفت -  
اے خواجه چند بستانی که مرا سیر نان سازی - نادوا با خود  
تاملے کرد که این کس به یک من نان سیر شود - غایتش دو  
من و از سه من تجاوز نتواند کرد - گفت نیم دینار بده و  
چندانچه بتوانی نان بخور - عرب نیم دینار بداد و براب  
دجله بنشست - نانوان نان می آورد و عرب باب تر کرده  
می خورد تا بها از نیم دینار بگذشت و به چهار دانگ رسید

و ازان هم متجاوز شده دینار تمام شد - نانوارا تحمل نهاند  
و گفت یا ابا العرب بدان خدای که ترا قوت نان خوردن  
بروی و جهر کرامت فرمود با من بگو که تا کی نان خواهی  
خورد - عرب جواب داد که اے خواجه بے صبری مکن تا این  
آب می رود من نیز نان می خورم \*

میرزا مهدی می نویسد که عسکر طوپال عثمان کمان پیش  
صد هزار مرد بودند - نادر بعزم مقابله یا طوپال عثمان در  
حرکت آمد بنابر قول میرزا مهدی دروازه هزار نفر در بغداد  
گذاشته خود با بقیه بطرف سامره که قریه ایست دو کنار  
دجله روی نهاد - اردو عثمانی قریب ده مژبور واقع شده  
بود - جنگی بسیار شدید و خونخوار اتفاق افتاد - در اول  
غلبه ایرانیان را شد و سواره ایرانی بیک حمله خصم را  
هزیمت داد - اما پیاده عثمانی پای جلالت پیش نهاد  
دست از حریف برد - فوجی از اعراب که نادر را از ایشان  
چشم داشت مدد بود بر یک طرف لشکرو حمله بردند و  
مردان کار که در تمام روز در آفتاب تابستان عربستان بگير  
و دار اشتغال داشتند بالا خزه از شدت گرما و حرارت  
آفتاب غامبه عطش دست شان از کار ماند - خون نادر دو  
سرتبه در میان دشمن اسپش گلوله خورده بر زمین افتاد و  
به این سبب علم دارو او را پنداشته رو بگریز نهاد -  
جمیع این اسباب دست بهم داده سبب عثمانی فتح شد \*

2. Translate the following into Persian :—

(a) The first was the conquest of Cashmir. That celebrated king-  
dom is an extensive plain, situated in the heart of the Himalaya  
mountains, and more than halfway up their height. Placed, by  
its elevation, above the reach of the heat of Hindustan, and  
sheltered by the surrounding mountains from the blasts of the  
higher regions, it enjoys a delicious climate, and exhibits in  
the midst of snowy summits, a scene of continual verdure, and

almost of perpetual spring. Trees belonging to different climates are scattered over its surface, while fruits of various kinds and flowers of innumerable descriptions are poured forth with spontaneous profusion over the hills and plains.

(b) While Humayun was at Badakhshan, where he remained for many months Camran returned from Sind and surprised Cabul. Humayun marched against him in the dead of winter, defeated his troops and drove him within the walls. On this and all subsequent occasions during the siege, Humayun put his prisoners to death in cold blood, which Camran retaliated by still greater cruelties, and even threatened to expose young Akbar, who had again fallen into his hands, to the fire of the cannon, if they continued to batter the town.

### SANSKRIT.—FIRST PAPER.

1. अस्ति मन्दराभिधाने पर्वते दुर्दान्तो नाम सिंहः ।  
स च सर्वदा पशुबन्धं विदधान एवास्ते । ततः सर्वैः पशुभि-  
र्निलित्वा सिंहो विज्जप्तः सृगेन्द्र किमिति सर्वपशुच्छेदः क्रियते ।  
वयमेव भवदाहारार्थं प्रत्यहमेकैकं पशुं दौकयामः । सिंहेनैकं ।  
एवमस्तु । ततः प्रभृत्येकैकं पशुं ददतः समासते । अथ कदा-  
चिद् वृद्धशकस्य कस्यचिद् वारः समागतः । सोऽचिन्तयत् ॥

वासहेतोर्विनीतिस्तु क्रियते जीविताशया ।

पञ्चत्वञ्चेद् गमिष्यामि किं सिंहानुनयेन मे ॥

- Explain the *samāsas* of मन्दराभिधानं and प्रत्यहम्.
- State the धातु and प्रत्यय in विदधान. Give its Parasmaipadi equivalent form of the same part of speech.
- Re-write the following sentences, changing the passive into the active construction.

(1) सर्वैः पशुभिर्निलित्वा सिंहो विज्जप्तः ।

(2) सृगेन्द्र किमिति सर्वपशुच्छेदः क्रियते ॥

(d) Parse ददतः

(e) Reproduce into your own Sanskrit the *śloka* at the end of the extract.

2. उत्तमं प्रणिपातेन शूरं भेदेन योजयेत् ।

नीचमल्पप्रदानेन समशक्तिं पराक्रमैः ॥

Give briefly the story illustrative of the counsel embodied in the couplet quoted above.

3. कृत्रिमं नाशमभ्येति वैरं द्राक् कृत्रिमैर्गुणैः ।

प्राणदानं विना वैरं सहजं याति न क्षयम् ॥

(a) Render the above into English.

(b) Characterise and illustrate कृत्रिमम् (धैरम्) and सहजं (वैरम्).

4. Give the sense of the following:—

(a) सतां साप्तपदं मैत्रमित्याहुर्विविधा जनाः ।

(b) आरम्भगुर्वी क्षयिणी क्रमेण

लघ्वी पुरा वृद्धिमती च पश्चात् ।

दिनस्य पूर्वार्द्धपरार्द्धभिन्ना-

स्त्रायैव मैत्री खलसज्जनानाम् ॥

5. Quote *slokas* from Chanakya and Hitopadesh-Sara-Sangrah, bearing upon the following:—

(a) The evils from the association with or the neighbourhood of दुर्जन.

(b) In praise of पौरुष.

(c) The superiority of intellect to brute force.

6. Write in a few words in your own Sanskrit on the subject of गुरूणां पूजा.

7. Translate into English:—

(a) अधोऽधः पश्यतः कस्य महिमा नोपजायते ।

उपर्युपरि पश्यन्तः सर्व एव दरिद्रति ॥

(b) तां सत्यनामां दृढतोरणार्गलां ।

गृहैर्विचित्रैरुपशोभितां शिवाम् ।

तुरीमयोध्यां नृसहस्रङ्कुलाम्

शशास वै शकसमो महीपतिः ।

## SANSKRIT.—SECOND PAPER.

1. Translate into English any five of the following extracts :—

(a) यस्य स्मृत्या च नामीत्त्या तपः पूजाक्रियादिषु ।

न्यूनं सम्पूर्णतां याति सद्यो वन्देतमच्युतम् ॥

(b) क्षणशः कणशश्चैव विद्यामर्षञ्च साधयेत् ।

क्षणं त्यक्त्वा कुतो विद्या कणं त्यक्त्वा कुतो धनम् ॥

(c) दृष्टिपूतं न्यसेत पादं वस्त्रपूतं पिबेज्जलम् ।

शास्त्रपूतं वदेद् वाक्यं मनःपूतं समाचरेत् ॥

(d) अमित्रं कुरुते मित्रं मित्रं द्वेष्टि हिनस्ति च ।

कर्म चारभते दुष्टं तमाहुर्मूढचेतसम् ॥

(e) उपेष्टस्य पौर्णमास्यां तिथौ पतिव्रतयः स्त्रियो वटं पूजयन्ति उपवसन्ति च । अस्मिंस्तिथौ पुरा सत्यवतो भार्यया सावित्र्या यमेन नीयमानः सत्यवान् मोचितः । ततश्चेदं व्रतं भूतले संप्रवृत्तं । अस्य व्रतस्याचरणेन भर्तृदीर्घायुस्त्वं सम्भवतीति मन्यन्ते । सर्वाश्च च भर्तृमतयः स्त्रिय इदं व्रतमाचरन्ति ॥

(f) सखे श्रूयतामिदानीमादितः प्रभृति मम वृत्तान्तः । मम जन्म पद्मनगरे । मम पितरौ पञ्च सोदराश्च पञ्चत्व-मापन्ना । युष्मद् देशादागतः कोऽपि विषयुवा मामुपयेमे । सप्तवर्षाण्यद्य तस्य नष्टस्य । किं करोम्यहमनाथा । क्व गच्छामि मन्दभाग्या । त्वमेव शरणमेधि ॥

2. Translate into Sanskrit (a) and (c) and any other four of the following extracts :—

(a) Behold this beautiful garden in which the peacocks are dancing and the bees are humming sweetly and sucking honey.

- (b) Where the water of the tanks is clear and the air is cool.
- (c) Where the koil is melodiously cooing and other birds of various colours are disporting themselves.
- (d) Where the lotus and many other flowers are blooming and the trees are bent down with the weight of their fruits.
- (e) By the command of the Lord of the Universe, the sun shines at day and the moon at night.
- (f) By His command the winds blow and the fire burns.
- (g) By His command the clouds send rains, rivers flow and the earth produces food for all living beings.

## HISTORY.

1. Explain the nature of Local Self-Government and state what forms of it exist in India.
2. Write down the names of the 13 provinces of India under British administration; what is the title of the head of the Local Government in each and give the names of the head-quarters of each Local Government.
3. How do you account for the small number of large towns in India?
4. What were the chief causes which led to
  - (1) The Civil War in the reign of Charles I.
  - or (2) The Revolution of 1688.
5. Write a brief narrative of.
  - (1) The Young Pretender's Invasion.
  - or (2) Bonaparte's Expedition to Egypt.
6. What changes in the Government of India were made by
  - (1) The Regulating Act.
  - (2) Pitt's India Bill.

When was the East India Company

  - (1) founded; and
  - (2) abolished;

and under what circumstances?
7. Narrate briefly the leading events in the life and career of
  - (1) Sivaji.
  - or (2) Tippu Sultan.

8. Write brief notices of the following persons, *with dates* :—  
Vikramāditya, Prithvi Rajah, Raja Todar-Mall,  
Sir Robert Peel, Earl of Chatham, Sir Walter Raleigh.
9. Notice very briefly the events for which the following places are celebrated in history, *with dates* :—  
Arcot, Killiecrankie, Jelalabad, Torres Vedras, Somnath, Sebastopol.

### GEOGRAPHY.

1. Draw a map showing the boundaries of the Russian Empire, and its chief rivers, mountain ranges, and largest cities.
2. Mention the principal lakes and inland seas of the world.
3. What different races of mankind inhabit Asia, and how are they distributed?
4. Name the chief crops cultivated in India, and the regions where they grow.
5. What regions of the earth are still unexplored or little known?
6. Explain the following terms, with an example of each :—  
Estuary, waterparting, delta, peninsula, ocean-current.
7. What, and where, are the following ?—Congo, Hecla, Lucerne, Hoango, Malta, Bangkok, Tokyo, Hamburg, Baghdad, Venezuela, Cuba, Victoria.
8. Explain what is meant by *climate* and *temperature*. What are the causes of the difference of temperature on different portions of the earth's surface? What are the Tropical Regions, and why are they so called?
9. How would you find the difference of time between Calcutta and Bombay?
10. What is an alluvial plain, and how was it produced?
11. How do you explain the presence of sea-shells on the tops of some mountains, and of the fossil remains of animals at a considerable depth under ground?

### ✂ GEOMETRICAL DRAWING.

*Note.*—Scale and figures to be neatly inked in : construction lines to be left in pencil.

1. A length of 100 yards is found to measure 35 inches on a map. Construct a scale to read yards, making it not less than 6 inches long.



2. Draw a circle of  $\frac{3}{4}$  inch radius. Cut off from this circle a segment which shall contain an angle of  $30^\circ$ .
  3. Draw two straight lines AB, CD, each three inches long; such that C is  $\frac{3}{4}$  inch from A, and D 1 inch from B. Draw a straight line which would bisect the angle formed by the two straight lines if they were produced.
  4. Construct a trapezium ABCD. Side AB is 1 inch long: diagonal AC makes  $30^\circ$  with AB, and is  $1\frac{3}{4}$  inches long: diagonal BD,  $1\frac{1}{2}$  inches long makes  $60^\circ$  with AB. Figure dimensions of AD, DC and CB.
  5. Construct a triangle whose sides are 2 inches,  $2\frac{1}{4}$  inches and  $2\frac{3}{4}$  inches. Inscribe a circle within the triangle; also describe a circle about it. Figure the radii of the circles.
- 

## ELEMENTARY CHEMISTRY AND PHYSICS.

*Marks will be given for neat diagrams.*

1. Describe an experiment showing that when any body is weighed in water it will suffer a loss of weight.  
A small piece of iron weights 91.5 grains in air and 82 grains in water. What is its specific gravity?
  2. (a) How is the pressure of the atmosphere measured?  
(b) Explain the action of a simple air pump.
  3. What effect has an electric current on a freely suspended magnetic needle?
  4. Light from a narrow slit falls on a glass prism. Sketch the path of the ray through the prism and describe what happens.
  5. Describe one of the balances used in your school. What kind of weights were used?
  6. Describe the appearance of the following substances:—  
Zinc sulphate, Magnesia, Lead acetate, Alum, Caustic Potash, Aluminium.
  7. How can crystals be produced? Describe any crystals you have seen.
  8. What is meant by *the law of combination in fixed proportions*? How could you show that this law is true.
-

## BOOK-KEEPING.

1. How many different classes of accounts are there? Name them. Give three examples of each class.

2. What is meant by—

(a) A merchant's stock or capital?

(b) His liabilities and assets? and

(c) His net capital?

3. Describe fully the process of balancing and closing the Ledger.

4. What is meant by—

(a) Transferring a balance?

(b) Bringing down a balance?

5. Describe the mode of ascertaining the whole amount of received and paid by a merchant during the year or any given time.

6. What is gained by not journalising cash transactions.

Make journal entries for the following:—

12-5-00	Drew cheque for private expenses ...	£ 100	30-6-00	Received Henry Williams' account for repairs ...	£ 5
15-6-00	Paid for repairs (cheque) ...	„ 15	„	Ground rent due to Portland estate for quarter ...	„ 8
30-6-00	Sent out the following accounts for rent due:—		„	Depreciation to be written off lease of property ...	„ 100
	John Smith ...	„ 50	„	Drew cheque for private expenses ...	„ 100
	William Robinson ...	50			
	Thomas Brown ...	„ 125			
	James Jones ...	„ 75			

7. What are the principal advantages of the "Continental" system?

8. Record the following transactions of Henry Jackson, and ascertain from them whether his capital increased or decreased on 1st April, 1901, and by what amount.

1st January, 1901—Balance of capital this day—

<i>Assets.</i>		£	
Property worth	...	1,000	
Due from John Smith	...	100	
" Thomas Brown	...	250	
Bank	...	3,000	
Cash	...	50	
			4,400

*Liabilities.*

A. Robinson	...	500	
			500

		£	
January, 2nd—Received from John Smith	...	100	
" Paid into Bank	...	50	
" " "	...	30	
" 30th— " salaries of attendants by cheque	...	10	
Febry., 1st—Received from Thomas Brown	...	100	
" 10th—Sold property this day to Henry Coleman	...	500	
" 28th—Withdrew from Bank	...	500	
March, 10th—Paid to A. Robison	...	400	
" 20th—Purchased stamps	...	10	
" 22nd—Paid to James Jones (as a loan without interest) by cheque	...	1,000	
" 25th—Received cash from Henry Coleman on account of value of property sold	...	500	
" 31st—Cash found stolen from office box	...	10	
			Value of property Rs. 600

POLITICAL ECONOMY.

1. What is the economic meaning of the term Wealth? Mention the chief sources of Wealth. When does water become Wealth and when can it not be considered such?

2. What is meant by the Division of Labour? Point out its advantages, dis-advantages and limits.

3. Mention the circumstances that make Wages in one employment higher or lower than in another.

4. Show that gold and silver fulfil the functions of money well, but that they are not suited for long deferred payments.

5. What are the advantages of using Paper Money? Mention the cautions necessary in issuing such money.

6. If Government were to order all dealers in the bazaar to sell at prescribed prices, what would be the ultimate effect of such an order upon (a) prices, and (b) supplies?

7. What sort of Public Works may advantageously be undertaken by Government, and when may such works be best left private enterprise?

8. Point out the advantages and disadvantages of Import Duties as a means of raising revenue.

## ENTRANCE AND SCHOOL FINAL-EXAMINATIONS, 1903.

### ENGLISH.—FIRST PAPER.

#### *Section A.*

1. 'Was there no poetry in these Puritans?' How does Kingsley answer this question in his description of a Puritan soldier? What further answer might be found in these Prose Readings?

2. (a) Explain the expressions in thick type:—

(i) He ran his finger down the edge, saying to himself, 'This is sharp medicine but it is a sound cure for all diseases.'

(ii) Roland who felt how much success depended on his own address and boldness, summoned together his whole presence and if he felt his spirits flag for a moment, cast his eyes upon Catherine.

(iii) Under the archway the long column began slowly to defile.

(iv) The boat lies beneath the wall too close under the islet to be seen by the warder, but I fear she will hardly escape his notice in putting off again.

(v) It was perhaps at a later hour that he wrote on the fly leaf of his Bible those touching lines in which the higher part of his nature alone is visible.

- (vi) No thought of mercy was in the mind of the man bold in civil war, whose maiden sword had been fleshed at Barnes.
- (vii) Vane adjured the House to dispense with the usual formalities which should precede the adoption of the bill.
- (viii) It was a time when even the speech of common was in a state of rapid flux.

(b) Illustrate by short sentences the various other meanings these words from the above extracts, may have:—sound, flag, defile, putting off, dispense.

#### *Section B.*

3. What difficulties had to overcome before Queen Mary could escape from Lochleven Castle. Show how, one by one, they were successfully met.

4. Give the substance of the comparison used in the Lay to describe—

(i) The death of Astur.

(ii) The shrinking of the Tuscans from further conflict with the dauntless three.

(iii) The approach of the Tuscan army—

(a) when seen far off;

(b) when seen nearer;

and in the Deserted Village to describe—

(iv) the position of the Village Preacher amongst his people;

(v) the preacher's method of guiding his people;

(vi) the insecurity of an empire based upon trade;

#### *Section C.*

5. Explain the following lines and show briefly their connection with the course of the poems:—

(i) Outspoke the Consul roundly,

This bridge it must go down.

(ii) To husband out life's taper at the close

And keep the flame from wasting by repose.

- (iii) Now Roman is to Roman  
More hateful than a foe,  
And the Tribunes beard the high,  
And the Fathers grind the low.
- (iv) Never I ween did swimmer  
In such an evil case,  
Struggle through such a raging flood  
Safe to the landing place.
- (v) But times are altered—Trade's unfeeling train  
Usurp the land and dispossess the swain.
- (vi) Careless their merits or their faults to scan  
His pity gave ere charity began.

6. (a) The student at Trinity College who went up to his professor to take leave of him because he had "finished his education" was wisely rebuked by the professor's reply "Indeed! I am only beginning mine." The superficial person who has obtained a smattering of many things but knows nothing well, may pride himself upon his gifts; but the sage humbly confesses that, "all that he knows is, that he knows nothing," or, like Newton, that he has been only engaged in picking shells by the sea-shore while the great ocean of truth lies all unexplored before him.

- (i) Why did the professor rebuke the student?
  - (ii) State in simple language without the use of figures, the substances of the passage after the word 'Newton.'
  - (iii) What is meant by a superficial person—a sage—a smattering of many things—his gifts.
- (b) Explain the expressions in thick type in the following extract:—

Here ensued a very dark period in Goldsmith's life. He was alone in London, without friends, without money, without introduction; his appearance was the reverse of prepossessing; and even despite his medical degree he had practically nothing of any value to offer for sale in the great labour-market of the world. How he managed to live at all is a mystery; it is certain that he must have endured a great deal of want; and one may well sympathise with so gentle and sensitive a creature reduced to such straits without inquiring too curiously into the causes of his misfortunes.

## ENGLISH.—SECOND PAPER.

## D.

1. What parts of a Verb must be known in order to conjugate it? How are verbs classified with regard to the mode of forming their past tenses? Give the past tense and past participle of the following verbs:—

To begin, to flee, to glow, to lose, to mistake, to spread, to understand.

2. What is voice? Transform the verbs in the following sentences from the Active to the Passive Voice.

(a) It is now necessary to consult the doctor.

(b) The judge suspected that some one had bribed the witness.

(c) Hew down the bridge, Sir Consul, with all the speed ye may.

Transform the verbs in the following sentences into the Active Voice:—

(a) Nothing is difficult to a man who is fired by ambition.

(b) I have been much distressed at your failure.

3. Combine the following detached sentences into a connected narrative:—

The messenger brought me the telegram. It was late. I rose hastily from my chair. I put on my overcoat. I descended the stairs. I opened the front door. The night was bitterly cold. A sharp wind was blowing. I buttoned my coat closely. I began to walk briskly in the direction of the railway station. I arrived there. The last train had gone a minute before. I did not know what to do.

4. How do you distinguish between the Participle and the Verbal Substantive in *ing*?

Illustrate your answer by the following examples:—

I am going a hunting.

I saw a boy throwing a stone.

Day dawning, we started.

Riding is healthy.

Explain the "a" in the first of these.

E.

1. Analyse :—

(a)

In *arguing too* the parson own'd his skill,  
 For e'en though vanquished he could argue still.  
 While words of learned length and thundering sound,  
*Amazed* the gazing rustics ranged *around*.

(b)

Of man's first disobedience, and the *fruit*  
 Of that forbidden tree, *whose* mortal taste  
 Brought death into the world, and all our woe,  
 With loss of Eden, till one greater Man  
 Restore us, and regain the blissful seat  
 Sing, heavenly Muse.

2. Parse carefully the words italicised in the following passage :—

"*It seems* very strange to me *that* men can be found senseless *enough* to suppose that the character of an orator can be supported by *any one who* is unacquainted with *philosophy*."

F.

1. Write sentences illustrating the same word used as different parts of speech :—

(a) Open and above board

(b) Over head and ears

(c) Well and good.

(d) By leaps and bounds.

Introduce the above expressions in sentences of your own in order to make their meaning clear.

2. Convert the following into Indirect Narration :—

(a) "I do remember, that in my youth, when I was wandering, upon such a night, I stood within the Coliseum's wall, midst the mighty relics of almighty Rome."

3. Convert the following sentences into Direct Narration :—

(a) The governor of the town then called out with a loud voice and ordered Androcles to explain to



them how a savage and hungry lion could thus in a moment have forgotten its innate disposition, and be converted all of a sudden into a harmless animal.

- (b) Prospero told Ariel that he was quite satisfied with his work and that his own charms had acted well seeing that all his enemies were now defeated.

### TRANSLATION.—THIRD PAPER.

G.

ایکبار ایک کسان کا بکرا اپنے مالک کے روکنے پر بھی  
شام کے وقت کسی جنگل میں چلا گیا۔ جنگل میں اوسکو ایک  
شیر نے دیکھا اور اوسکا پیچھا کیا اور اوس سے پوچھا کہ تو  
راتکو جنگل میں کیوں گھومتا ہے۔ اسپر بکرے نے کہا کہ میں  
نے بہت ہاتھیوں کو جان سے مارتا ہوں اور اب میں کسی شیر کی  
قلاش میں ہوں کہ اوسکو بھی مارتا ہوں۔ اسپر تو باگہم تر  
گیا۔ ایک سیار نے اس گفتگو کو سنا اور شیر کے پاس جا کر  
کہا کہ اے شیر تمہارے لئے شرم کی بات ہے کہ تم ایک بکرے  
سے تر گئے۔ چلتے دھلوگ اوس بکرے کو مار ڈالیں۔ اسپر  
شیر بولا اے سیار تو بڑا قریبیا جانور ہے اور اسی وجہ سے  
بےروسے کے قابل نہیں ہے۔ یہ بکرا ایک ایسا بہادر ہے کہ  
اوسنے بہتیرے ہاتھیوں کو مارتا ہوں اس کے جواب میں سیار  
نے کہا اگر آپ مجھے بےروسا نہیں کرتے تو چلتے دھلوگ  
اپنے اپنے دونوں ایک دوسرے سے باندھیں تاکہ بوقت ضرورت  
ایک دوسرے کی مدد کریں اور اس بکرے کو مار ڈالیں جو  
کہ ہمدونوں کے لئے ایک مزیدار لقمہ ہے۔ اس کے بعد وہ دونوں  
اوس بکرے کے مارنے کے لئے چلے۔ جیوں ہی اس بکرے نے  
ان دونوں تاراؤں نے جانوروں کو آتے دیکھا وہ بول اوتھا واہ  
اے میرے پیارے سیار تمہنے خوب کیا کہ اس باگہم کو

میرے پاس لے آئے کیونکہ میں اسی کی کھوج میں یہاں آیا ہوں \*

H.

ایک آدمی ایک دانشمند کے پاس گیا اور کہا کہ جناب من میں تو اس کھدخت بدن میں بندھے رہنیکو برداشت نہیں کرسکتا کہ اوسکو کھانا اور پانی دیتا رہوں اور اسے آرام دیا کروں اور اسکی صفائی کیا کروں اور اسکے لئے ادھر ادھر دورتا پھروں کیا یہ چیزیں ہمارے لئے بیکار اور بیفائدہ نہیں ہیں؟ اور چونکہ موت کوئی بڑی چیز نہیں ہے اور چونکہ ہملوگ کسیقدر خدا کے ناتے والے ہیں اوو اوسی کے پاس سے آئے ہیں اسلئے ہملوگوں کو وہیں واپس جانا چاہئے جہاں سے ہملوگ آئے ہیں۔ ہملوگوںکو اون زنجیروں سے جنسے ہم بندھے ہوئے ہیں آزاد ہونا چاہئے۔ اس زمین میں سوائے تاکواؤں اور چوروں اور عدالتوں اور ظالموںکے اور کچھ نہیں ہے جو صورت بوجہ اس کھدخت بدن اور اسکی ملکیتوں کے اپنے تصور میں ہملوگوں پر زور رکھتے ہیں۔ ہملوگوں کو چاہئے کہ انکو دکھا دیں کہ انکو کسی چیز پر بھی زور نہیں ہے۔ اسکے جواب میں اس دانشمند نے یہ کہا کہ بھلے آدمی! خدا کی راہ دیکھو جب وہ تمکو اشارہ کرے اور اس فوکری سے چھٹکارا دے تب تم رہا ہو کر اوسکے پاس جاؤ۔ مگر بالفعل یہیں رہنے پر صابر رہو جہاں اسنے تمکو رکھا ہے۔ تمہارے پردیس میں رہنیکے دن تھوڑے تو ہیں اوسکو برداشت کرنا بھی آسان ہے۔ تمہارے رہو اور بے سمجھے بوجہ یہاں سے کوچ نہ کرو \*

एक समय एक किसान का बकरा अपने सालिक के सना करने पर भी संध्या के समय जङ्गल में चला गया । जङ्गल में उसको एक बाघ ने देखा और उसका पीछा किया और उससे पूछा कि तू क्यों रात को जङ्गल में घूमता है । इस पर बकरे ने कहा कि मैंने बहुत हाथियों को जान से मार डाला है अब मैं किसी बाघ के खोज में हूँ कि उसको भी मार डालूँ ।

इस पर तो बाघ डर गया । एक सियार ने इस बात की बात को सुन लिया और बाघ के पास जा कर कहा कि ऐ बाघ यह लाज की बात है कि तुम एक बकरे से डर गये । चलिये हम लोग उस बकरे को मार डालें । इस पर बाघ बोला । अरे सियार तू बड़ा धूर्त जानवर है इस कारण तू विश्वास के योग्य नहीं है । यह बकरा तो ऐसा शूर है कि इसने बहुतेरे हाथियों को मार डाला है । इस पर सियार बोला यदि आप मेरा विश्वास नहीं करते तो चलिये हम लोग अपनी अपनी दुन्ने एक साथ बांधें और काम पड़े तो परस्पर सहायता करें । और उस बकरे को मार डालें और उसके स्वादु मांस को चखें । तब वे दोनों उस बकरे के मारने के लिये चले । ज्यों ही इस बकरे ने इन दो भयंकर जानवरों को देखा कि वह दोल चठा । बाह प्यारे सियार तुमने खूब किया कि इस बाघ को मेरे पास पहुंचाया क्योंकि मैं इसी के खोज में यहां आया हूँ ॥

एक मनुष्य एक ज्ञानी के पास गया और कहा कि

सहाय्य मुक्त से अब सहा नहीं जाता कि मैं इस दुर्भाग्य देह में बंधा रहूं इस का खान पान भरा करूं इसे आराम दिया करूं और इसकी सफाई किया करूं और इसके लिये इधर उधर दौड़ता फिरूं । क्या ये चीजें मेरे लिये बेकाम और बेमतलब नहीं हैं । और जब कि मौत तो कोई बुरी चीज़ नहीं है और जब ईश्वर से तो हमारा एक प्रकार का नाता है और हम उन्हीं के पास से तो आये हैं तो क्यों न हम वहीं लौट जायं जहां से हम आये हैं । हम इस जंजीर से छूट जावें जिस से कि हम बंधे हैं ।

इस दुनिया में सिरा चोरों और डाकुओं के और अदालतों और जालिमों के और कुछ नहीं है । जो केवल हमारे शरीर और मिलकीयत ही के कारण ये लोग समझते हैं कि हम पर उनका जोर चलता है । सो हम उनको दिखा दें किसी चीज़ पर उनका जोर कुछ भी नहीं है ।

इस पर ज्ञानी जी बोले कि भले आदमी भगवान की राह निहारो जब ईश्वर इशारा करेंगे तब तुम यहां से छूट कर उनके पास जाना । अभी तो यहीं सन्तोष कर बने रहो जहां उन्होंने ने तुम्हें रक्खा है । तुम्हारे परदेश में रहने के दिन थोड़े ही तो हैं और उनका निवाहना सहज ही है । सो ठहरो वे समझे बूझे यहां से कूच न करो ॥

### MATHEMATICS.—FIRST PAPER.

1. (a) How many lengths of  $2\frac{3}{4}$  inches each can be cut from a rod  $7\frac{1}{2}$  feet long, and what will be the length of the portion left?

(b) Reduce  $\frac{2}{3}$  of Rs. 4. 7a. 3p. to the fraction of  $\frac{3}{4}$  of Rs. 7. 14a. 8p.

2. (a) Divide  $\cdot 016085$  by  $3\cdot 125$ ; and express  $1\cdot 458\bar{3} \div 1\cdot 5$  as a decimal.

(b) Simplify

$$\frac{5\cdot 5}{\cdot 63} \times \frac{\cdot 081}{4\cdot 2} \times \frac{4\cdot 9}{\cdot 33}$$

3. A and B can do a piece of work in 12 days; after working 2 days they are assisted by C, who works at the same rate as A, and the work is finished in  $6\frac{1}{2}$  days more; in how many days would B alone do the work?

4. The 4 p.m. passenger train from Delhi to Tundla stops first at Ghaziabad,  $12\frac{3}{4}$  miles distant, at 4-30 p.m.; the whole journey is  $127\frac{1}{2}$  miles, and 20 per cent. of the time is expended in stoppages; at what time is the train due at Tundla?

5. At what rate per cent. simple interest will Rs. 833. 5a. 4p. amount to Rs. 952. 1a. 4p. in 3 years and 2 months?

6. (a) Find the value of

$$x^3 + y^3 + 3xy - 1, \text{ when } x + y = 1.$$

(b) Find the L.C.M. of

$$2x^4 + 3x^3 + x^2, 2x^3 - 3x^2 - 2x, \text{ and } x^2 - x - 2.$$

7. Simplify

$$(i) \frac{x^4 - 2x^3 + x^2 - 1}{x^4 + x^2 + 1}.$$

$$(ii) \frac{a+1}{a(a-b)(a-c)} + \frac{b+1}{b(b-a)(b-c)} + \frac{c+1}{c(c-a)(c-b)}.$$

8. Solve the equations:—

$$(i) \frac{1}{x-1} + \frac{2}{x-2} = \frac{3}{x-3}.$$

$$(ii) 2x - \frac{3}{y} = 3,$$

$$8x + \frac{15}{y} + 6 = 0.$$

9.  $A$  has 6 more rupees than  $B$ , but if  $A$  give to  $B$  half his money, and then  $B$  give back to  $A$  one quarter of his increased sum, they will each have the same sum; find what each had at first.

10. If  $x - 4y : y - 3x = 3 : 2$ , find the value of the ratio  $x^2 - xy + y^2 : x^2 + y + y^2$ .

### MATHEMATICS.—SECOND PAPER.

N. B.—*The usual signs and abbreviations are allowed.*

1. (a) Define a rhombus and prove that the diagonals of a rhombus bisect each other at right angles.

(b) The straight lines drawn from the middle points of the sides of a triangle at right angles to them are concurrent.

2. (a) In every triangle, if a side be produced, the exterior angle is equal to the sum of the two interior opposite angles; and the three interior angles are together equal to two right angles.

(b) The interior angles of any polygon are together less by four right angles than twice as many right angles as the polygon has sides.

3. (a) In a straight line  $PR$  find a point  $K$  so that the rectangle  $PR, RK$  may be equal to the square on  $PK$ .

(b)  $D$  is the middle point of the base  $BC$  of a triangle  $ABC$ , and  $E$  the foot of the perpendicular from  $A$  on  $BC$ . Prove that the difference of the squares on  $AB$  and  $AC$  is equal to twice the rectangle  $BC, DE$ .

4. (a) From a given point draw a tangent to a given circle.

(b) The angle in a semicircle is a right angle: the angle in any other segment of a circle is acute or obtuse according as the segment is greater or less than a semicircle.

5. Inscribe a regular hexagon in a given circle.

6. The side of a rhombus is 50 ft. and one diagonal is 60 ft.

Find the other diagonal and the area of the rhombus.

7. The sides of a parallelogram are 9 yds. and 13 yds. and one diagonal is 10 yds. Find the other diagonal and

the area of the parallelogram, and the perpendicular distance between each pair of parallel sides.

8. The sides of a triangle are  $2\frac{1}{2}$  ft. 3 ft.  $3\frac{3}{4}$  ft. Find in inches the radii of the inscribed and circumscribed circles.

9. A circle, area 314.16 sq. in. is divided into four equal areas by concentric circles. Find their diameters. ( $\pi=3.1416$ ).

10. From the following notes draw a plan of the field and find its area :—

Links.		
80 20 From	to A	
	950	
	550	
	150	
50 From	C	
	to C	
	570	
	200	
From	B	turn to the left.
	to B	
	760	
	400	
From	A	100 go East.

### ARABIC.—FIRST PAPER.

1. Translate the following into English :—

A.

كان رجل يلئخ بالراء لكن لغرط معرفته بلغات العرب  
التزم علي نفسه ان لا يتكلم الا بكلمة خلت عن الراء ولاجل  
ذلك قلها يطلع علي لئخه الناس - فاتفق ان حضر يوما  
مجلس الحاكم و اخبروه عن حاله - فارد الحاكم اختباره - و  
قال اصعد المنبر و قل للناس امر الامير ان يعفو البيز في  
الطريق ليروي منه الوارد و الصادر - فلم يلبث و صعد  
المنبر - و قال بديهة - حكم الحاكم ان يجعل القليب في  
السبيل لينتفع منه البادي و الصادي - فتعجب الحاكم و  
الحاضرون من كمال قدرته علي وضع لفظ مكان لفظ مناسب له \*

B.

لها سلم نجاح بن سلمته الي موسي بن عبد الله الاصغهاني  
ليستادي ما عليه من الاموال عاقبته - فتلغ في مطالعته -  
فاجتمع بعض الرؤساء بابي العيناء - فقال له ما عندك من  
خبر نجاح فقال ابو العيناء فوكزه موسي فقضي عليه - فبلغت  
كلمته موسي ثم لقي ابا العيناء في الطريق فهدده فقال له  
ابو العيناء اتريد ان تقتلني كما قتلت نفسا بالامس \*

2. (a) Give the root meaning of منبر as well as derive the meaning.

(b) Explain the allusion in passage (b) in question 1.

3. Translate the following into English:—

A.

الناس من جهة التمثال اكفاء \* ابوهم آدم والام حواء  
وانها امهات الناس اوعية \* مستودعات ولاحساب آباء  
فان يكن لهم في اصلهم شرف \* يفاخرون به فالطين و الهاء  
وان اتيت بفخر من ذوي نسب \* فان نسبنا جود و علياء  
لا فضل الا لاهل العلم انهم \* علي الهدى لمن استهدي الدلاء  
وقيمة الهرء ما قد كان يحسنه \* والجاهلون لاهل العلم اعداء  
فقم بعلم ولا تبغي له بدلا \* فالناس موتى واهل العلم احياء

B.

لا تظلمن اذا ما كنت مقتدرا \* فالظلم مرتعه يفضي الي الندم  
فاحذر بني من المظلوم دعوته \* كيلا يصيب سهام الليل في الظلم  
تنام عينك و المظلوم منتبه \* يدعوك عليك و عين الله لم تغم

C.

اين الذين بنوا لداك وشيدوا \* عرفا به لم يحكها بنيان  
جمعوا الحساكروا الجيوش مخافة \* من ذل تقدير الاله فهانوا  
اين الاكسرة الهذاع حصونهم \* تركوا البلاد كانهم ما كانوا

4. Write out the poetical passages (b) and (c) with diacritical marks very carefully.



5. Write out the root of the following, and mention the أبواب to which they belong:—

الدخروا -- مستودعات -- استهدي -- منته -- شيّدوا  
مخافة -- لم يجهّم

6. Analyse the following:—

اتريد ان تقتلني كما قتلت نفسا بالامس

7. Distinguish between معرب and مبني and معرفة and نكرة, and explain them by examples.

### ARABIC.—SECOND PAPER.

1. Translate into English:—

بكرة نسافر الى بلدنا ان شاء الله تعالى - قدم الحاج من مكة  
المشرقة يوم الخميس - مياه الآبار خير من مياه البعار - جاؤا  
اباهم عشاء يبعون - سبعان الهالك الذي لا ينال ولا يهوت -  
للصائم فرحتان فرحة عند الافطار وفرحة عند لقاء ربه - يريد  
الله بكم اليسر ولا يريد بكم العسر - اذا سألك عبادي عني فاني  
قريب - بارك الله لنا ولكم في القرآن العظيم - ثم اتوها اوصيام  
الي الليل - سلام علي ابراهيم كذاك نجزي الهعسنين - انه من  
عبادنا المهخلصين - يا ابت افعل ما تؤمر ستجدني ان شاء الله  
من الصابرين - رب هب لي من الصالحين - من اطاع الله ورسوله  
فقد رشد ومن عصى الله ورسوله فقد غوى - الا ان حزب الله هم  
المفلحون - عليك باكتساب العلم - ان الله يرزق من يشاء بغير  
حساب - خير الزاد التقوي - ان اصدق الحديث كتاب الله \*  
حضر اعرابي على مائدة العجاج وكان عليها حلوي فاكل  
لقمة فقال العجاج من اكل من هذا شيئا ضربت عنقه فامتنع  
الناس و بقي الا اعرابي ينظر الى الحلوي مرة و الى العجاج

سورة اخري ثم قال ايها الامير اوصيك باهلي خيرا ثم اندفع  
يا كل فضحك الحجاج و امر له بصلوة \*

2. Translate into Arabic with diacritical marks :—

There is no deity but God. Take your books and go to school. Read your lessons and play not with fools. How fair that man is. A boy and a girl came. I have a red dress. The Koran teaches us to obey our parents and to be kind to orphans. Give alms of such things as you have. How many dirhams have you? I have 25 dirhams and Yusuf has nine. Ahmad has four brothers and three sisters. I received a letter from Sulaiman. Speech is silver, silence is gold. An old woman lost the use of her eyes. Live not to eat but eat to live. Lead us to the right path. A wise foe is better than a foolish friend. Proud men have no real friends. We thank Thee for our daily food. The happiness of heaven lasts for ever.

### PERSIAN.—FIRST PAPER.

1. Translate the following passages into English :—

A.

و گاهی برای اعتیاد تردد و دشواری و آگهی از احوال  
ملک و افعال رعایا - به نخبه‌پیر می‌پزدازد و در خور و خواب  
که ناگزیر زندگی و پابند گیست نهایت اعتدال رعایت  
می‌فرمایند - و اصلا بسان فرما روایان متغلب که غرض از پایه  
گروانهای سلطنت جز اندوختن مال و منال که سرمایه وزر و  
وبال است امر دیگر ندانند و همگی زندگانی گرامی را به  
مستلذات جسمانی و مختنجات نفسانی که پیرویه اثم و نکال  
ست صرف نمایند لکن به غفلت و بطالت بسر نهیروند \*

B.

و در آنجا دختر نیک روی از شاهزادگان که آئین عیسی  
داشت بزنی گرفت و پسرے آورد فوش زارش نام نهاد - پسر  
به کیش مادر گروید هر چند فوشیروان درخواست کرد که از آن

کیش باز گردید پسر نپذیرفت اورا در کاخے کرد - راه آمد  
و شد بر او بست پس از چندے روے به هام آوراں نهاد و  
در آنجا رنجور شد پسر گهان برد که روزگار پدر پسر آمده  
ازان کاخ بیرون شده - گروهی انبوه بریژه ترسایان را گرد آورد  
و زر بسیاری بخش کرد فرمان فرمایان خوزستان و پارس را  
گذاشت و زندانیان را آزادی بخشید \*

2. Explain clearly the following passages in English :—

زمین را از آسمان نثار است و آسمان را از زمین غبار (1)  
زر از معدن بکان کندن بدر آید و از دست بخیل  
بجان کندن \*

مقار را سه شش می باید لیکن سه یک بر می آید \* (3)

3. Thranslate into English :—

جدا از پی خسرو نیک بخت \* بساط زر افکنده بالای تخت  
نهاد یکے خوان خورشید ناب \* برو چار کاسه زر بلور ناب  
یکے از زر و دیگر از لعل پر \* سوم پر ز یاقوت و چارم زدر  
وای بود سرپوش بالای شان \* که تا سر نوشابه ماند نهان  
سکندر چو سرپوش شان کرد باز \* ببیند که سنگیست در خوان فراز  
چو بر مائده دستها شد دراز \* دهان بر خورش راه بکشاد باز  
به شد گفت نوشابه بکشائے دست \* بخور این خورشها که در پیش هست  
به نوشابه شد گفت کای ساد دل \* نوا کج مزن تا نهانی خجل  
درین صحن یاقوت و خوان زرم \* همه سنگ شد سنگ را چون خورم

4. Write out in Persian what you know about Iskandar.

5. Translate the following couplets into English :—

بر سر قربت ما چون گذری همت خواه  
که زیارتگه زندان جهان خواهد بود  
بر زمینے که نشان کف پای تو بود  
سایها سجد صاحب نظران خواهد بود

بروای زاهد خود بین که ز چشم من و تو  
رازی این پرده نهانست و نهان خواهد بود  
عیب مستان مکن ای خواجه کز بس که نه رباط  
کس ندانست که رحلت بچه سان خواهد بود

6. Translate into English the following quatrains from Umar Khayyam:—

ساقی قداحی که کار عالم نفسی ست  
گر شادی از ویگ نفس آن نیز بسی ست  
خوش باش ز هر چه پیشت آید ز جهان  
هرگز نه شود چنانکه دلخواه کسی ست  
قومی ز گزاف در غرور افتادند  
قومی ز پی حور و قصور افتادند  
معلوم شود چو پردها بردارند  
کز کوئی تو دور دور افتادند

7. Explain in English or Persian the meanings of the following couplet:—

چون حرف آخر است ز ابجد که سخن  
در راستی چو حرف نخستین ابجد است

#### PERSIAN.—SECOND PAPER.

1. Translate into English:—

A.

فتحعلیشاه در خدمت عم اعظم سالها بتجارب روزگار  
آموخته آمد و سختی ها دید و رازها فهمید تا در سنه ۱۲۱۲  
هجری بحکم وراثت و وصایت از ملک جم خروج و در مرز  
ری بر تخت عم عروج فرمود - قریب بچهل سال بقلع و قمع  
اعدا و تربیت احببا پرداخت - نخست صادق خان را بکیفر  
و سانید و قتله خاقان اکبر را قصاص در آورد و بقایای

ملوک زندیه را پاداش داد و بقیه اولاد نادر شاه را قلع و قمع کرد و سرکشان را باطاعت در آورد و سلسله علیّه قا چاربه را بمواحدت و مواصلت اتحاد بخشید و هر کس را بمنصبی در خور خوشنود بداشت و حکومت سرحدات ایران را بشاهزادگان بینظیر و وزراے با تدبیر معول و موکل فرمود ملک ایران را که روے بخرابی نهاده بود صورت آبادی داد و خلائق در عهد دولتش در مهد امن و امان غنوده شدند و از تکالیف شاقه آسوده ماندند بعد از فراغ از امور ملک داری بعیش و شاد کامی و تفرج باغ و بهار و تغنن راغ و شکار مشغول بود و شبها در سراهائے چون بهشت پر حور و مغلهائے چون خورشید پر نور بعیش و عشرت میگذاشت ملکی از ملوک را شهابائی بدان خوبے و قضائے بدان مرغوبی کم روے داده بود و اینقدر عیش و تبهل و فرزندان متعدد شائسته هیچ سلطانے را حاصل نگشته امرائے بزرگ و وزراے دانا داشت و خود در هر صفتی و هر هنرے دانا و از همه اعلمی بود \*

2. Translate into Persian :—

B.

God has bestowed upon us certain powers and gifts which no one is at liberty to take from us or to interfere with. All attempts to deprive us of them is theft. Under the same head may be placed all purposes to deprive us of the right to earn property or to use it as we see fit. Honesty has ever been esteemed by people generally as one of the greatest of all virtues. The laws protecting it have been one of the greatest boons that can be conferred on man. Under the same head may be placed our character and influence. They are property, and we have a right to retain them and make a good use of them for our own good and that of others.

## C.

Servants have to give such service as was understood at their engagement—this to be determined by custom or the law of the country. Masters and mistresses should have respect both to the best interests and feelings of their dependents. We all know how masters and especially mistresses, are apt to complain of their servants. But the fault may lie in the caprice of those who are in authority. They should realize that the poor and dependent have also rights which are to be rigidly attended to. They should have liberty of thought and of religious worship. The good masters or mistresses commonly get in the end good servants, who, as a rule, are apt to remain with those who are considerate and kind to them.

## SANSKRIT.—FIRST PAPER.

1. अस्ति कस्मिंश्चित् कूपे गङ्गदत्तो नाम मण्डूकराजः  
प्रतिवसति स्म । स कदाचिद्दायादैरुद्वेजितोऽरघटघाटी स-  
मारुह्य निष्क्रान्तः । अथ तेन चिन्तितम् । यत् कथं तेषां  
दायादानां मया प्रत्यपकारः कर्तव्यः । एवं चिन्तयन् विले  
प्रविशन्तं कृष्णसर्पमपश्यत् । तं दृष्ट्वा भूयोऽप्यचिन्तयत् ।  
यदेनं तत्र कूपे नीत्वा सकलदायादानामुच्छेदं करोमि ।  
उक्तं च—

शत्रुमुन्मूलयेत् प्राञ्जस्तीक्ष्णं तीक्ष्णेन शत्रुणा ।  
व्यधाकरं सुखार्थाय कण्टकेनैव कण्टकम् ॥

- (a) Parse the underlined words.  
(b) State the धातु and प्रत्यय in समारुह्य and निष्क्रान्तः  
(c) Change the voices of the following :—

- (1) एवं चिन्तयन् विले प्रविशन्तं कृष्णसर्पमपश्यत् ।  
(2) कथं मया प्रत्यपकारः कर्तव्यः ।  
(3) शत्रु मुन्मूलयेत् प्राञ्जस्तीक्ष्णं तीक्ष्णेन शत्रुणा ।

- (d) What is the significance of अस्ति, नाम and स्म in the above extract ?  
 (e) Translate the *sloka* at the end of the above extract into English or Hindi.

2. Give the substance of the following verses in your own Sanskrit :—

शैले शैले न साण्डिक्यं मौक्तिकं न गजे गजे ।  
 साधवो न हि सर्वत्र चन्दनं न वने वने ॥  
 हेलो स्यात् कार्यनाशाय वहिनाशाय निर्धनम् ।  
 याचना माननाशाय कुलनाशाय भोजनम् ॥  
 नैतानतिशयेज्जातु तात्पश्यान् दूषयेत् ।  
 नित्यं परिचरेच्च तद्वै सुकृतमुत्तमम् ॥  
 परोक्षे कार्यहन्तारं प्रत्यक्षे प्रियवादिनम् ।  
 वर्जयेत्तादृशं मित्रं विपकुम्भं पयोमुखम् ॥

- (a) Conjugate the roots of स्यात्, उपजायते and अशनीयात् in the first preterite.  
 (b) Is the form अतिशयेत् correct ?

3. Expound and name the Samasas :—

उद्यानाम्रवणोपेताम् दीर्घदर्शी । दीर्घायुः । महा-  
 राष्ट्रविवर्धतः । अहस्ताभरणः ।

- (a) State the धातु and प्रत्य in उपेत् and दर्शी.  
 (b) Justify the ए in the word आसवण.

4. Translate into English :—

वापीकूपतडागानां देवालयकुजन्मनाम् ।  
 उत्सर्गात्परतः स्वाम्यनपि कर्तुं न शक्यते ॥  
 यस्यास्ति सर्वत्र गतिः स कस्मा-  
 त्स्वदेशरागेण हि याति नाशम् ।  
 तातस्य कूपोयनिति ब्रुवाणाः  
 क्षारं जलं कापुरुषाः पिबन्ति ॥

5. Reproduce in Sanskrit Prose :—

प्राणा यथात्मनोभीष्टा भूतानामपि ते तथा ।

आत्मौपम्येन भूतेषु दयां कुर्वन्ति साधवः ॥

भृतो वृद्धो यो न विभर्ति पुत्रः

स्वयोजिजः पितरं सातरं च ।

तद्वै पापं भ्रूणहत्याविशिष्टं

तस्मान्नान्यः पापकृदस्ति लोके ॥

(a) How is the word औपम्य formed ?

(b) Give the root in विभर्ति.

6. Write down the meanings of the following in English or Hindi :—

कदर्य, भ्रूणहत्या, डिण्डिम, विमान, निष्क, अवृत्त,  
वदान्य, तोरण, नागदन्त, विश्रब्ध ।

### SANSKRIT.—SECOND PAPER.

1. Translate any six of the following Extracts into English :—

(a) किम्भूषणाद् भूषणमस्ति शीलम्  
तीर्थम्परङ्गिम् स्वमनो विशुद्धम् ।  
किमत्र हेयम् परनिन्दनादि  
सेव्यं सदा किञ्च गुरुवेदवाक्यम् ॥

(b) विहितस्यानुष्ठानान्निन्दितस्य च सेवनात् ।  
अनिग्रहाच्चेन्द्रियाणां नरः पतनं गच्छति ॥

(c) निन्दतु नीतिनिपुणा यदि वा स्तुवन्तु  
लक्ष्मीः समाविशतु गच्छतु वा यथेष्टम् ।  
अद्यैव वा सरणमस्तु युगान्तरे वा  
न्याय्यात् पथः प्रविचलन्ति पदं न धीराः ॥



(d) यद्वृद्दासि विशिष्टेभ्यो यच्चात्रासि दिने दिने ।  
तत्त वित्तमहं मन्ये श्रेयं कस्यापि रक्षसि ॥

(e) ननु प्रभाता रजनी । तच्छीघ्रं गयनम्परित्यजामि ।  
स्नानादिशरीरशुद्धिं निर्वर्त्त्यं गुरुदेवपूजनादिभियथाशक्ति-  
मनःशुद्धिञ्च सम्पादयामि ।

(f) उपरते भर्त्तरि यत् प्राणाः परित्यजन्ते तन्मीर्यम् ।  
उत्तरा विराटदुहिता वालिका विनयवति धीमति विक्रान्ते  
च पञ्चत्वमभिसन्यावुपगतेऽपि प्राणान्नजहौ । अन्या अपि  
सहस्रशः कन्यका अभरत्तमत्यो जाताः सत्यो जीवितानि न  
तत्पञ्चुरिति श्रूयते ।

(g) देवि किमत्र क्रियताम् । अलं रुदितेन । जन्मान्तरे  
न कृतसवदातङ्गमर्म्भः । जन्मान्तरविहितमेव कर्मफलमुपनयति  
पुरुषस्येह जन्मनि । अतोऽत्रापि जन्मनि कुर्वधिकाङ्गु-  
भक्तिम् । द्विगुणानुपपाद्य देवतासु पूजाम् । ऋषिजनपरि-  
त्तर्यासु दर्शितादरा भव । अव्ययफला हि महानुनिसेवा ॥

2. Translate into Sanskrit any six of the following sentences:—

- (a) Can a lamp be of any use to a blind man ?
- (b) Let him come to see me to-morrow morning.
- (c) Poverty is the best of friends.
- (d) Speak the truth, dear child: it is better to suffer punishment than to deceive.
- (e) If you wish to achieve much, you must attempt much.
- (f) If you had done what you were told to do, this trouble could not have arisen.
- (g) While still a mere boy, and without a friend in all the world, he journeyed to Benares on foot, there to seek for a Guru who should teach him all he wished to learn.

## HISTORY.

1. What is meant by the maintenance of order in a country.  
What evils follow from disorder?  
How is order maintained in India?
2. What are the broad principles on which taxation in India is based.  
What are the main heads of—  
(1) Revenue.  
(2) Expenditure.
3. About what proportion does the area of the Native States bear to that of British India? Why are the good government of the Native States and the prosperity of their subjects object of direct interest to the British Government and its citizens? Illustrate your answer by references to past history.
4. Give a list of the sovereigns of England in chronological order from Henry VII. to Edward VII. with the dates of their accession.
5. Give, with dates, an outline either of the wars between England and Scotland in the reigns of Edwards I. and Edward II, or of the American War of Independence.
6. Write a short account of any two of the following events :—  
The Rising of Wat Tyler, the defeat of the Great Armada, the expulsion of the Long Parliament, the Capture of Quebec by Wolfe, the battle of Trafalgar, the relief of General Gordon.
7. Write a short life of Nur Jehan with dates.
8. Give an account of the first administration of Lord Cornwallis as Governor-General.
9. Mention all you know about any two of the following :—  
Asoka, Mahmud of Ghazni, Sivaji, Dupleix.

## GEOGRAPHY.

1. (a) Into how many zones of climate is the whole earth's surface divided? Describe them, with a diagram.  
(b) Define :—  
*Plateau, Meridians, Latitude, Glacier.*
2. Name—  
(a) The highest peaks in England, Scotland, Wales and Africa respectively.

(b) The four large rivers of European Russia.

(c) The possessions of the Dutch in the Malay Archipelago.

3. Give accurately the positions of the following, and mention what, and in whose possession, each is :—

Mauritius, Macao, Perak, Vancouver, Cuba, Singapore, Angola and Penang.

4. Give a description of Mexico, stating its climate and vegetable and mineral productions.

5. Name in order, going from West to East, the principal islands in the Mediterranean Sea, stating the country to which each belongs.

6. Draw a neat map of North America, showing its boundaries, divisions, rivers, lakes and the position of its largest towns.

7. Find the time at Greenwich when it is eight o'clock in the morning at Buenos Ayres,—the longitude of Buenos Ayres being  $58. 61^{\circ}$  West.

8. Explain clearly the origin *Springs*.

9. What is *dew*? Why is there more dew on clear than on cloudy nights? Why are bamboos which lie on a large rock wet with dew in the early morning and not the rock?

10. What evidence do volcanoes give of the condition of the interior of the Earth? From what other facts can we draw the same inference?

## GEOMETRICAL DRAWING.

*Time allowed—2 hours.*

*Note.*—Seale and figures to be neatly inked in, construction lines to be shown, but may be left in pencil.

1. Construct a diagonal scale of 12 feet to an inch to read feet and inches. Draw line, and mark off on it from the scale a distance of 63 feet 8 inches.

2. Draw two lines inclined to each other at an angle of  $22\frac{1}{2}^{\circ}$ . Join them by the segment of a circle of a radius of 1 inch tangential to both lines.

3. In a square of 2 inch side construct a hexagon with four of its angles touching the four sides of the square.

4. Draw a triangle two of whose sides are 2.5 inches and 3 inches respectively, the angle opposite the shorter side being  $40^\circ$ .

5. The adjacent sides of a trapezium are 2.3 inches and 1.8 inches respectively, and the included angle is  $30^\circ$ , the other sides being 2.75 inches. and 3 inches. Construct the figure, and give the lengths of the diagonals.

6. Inscribe a circle in a rhombus of 2-inches side and  $1\frac{1}{4}$  inches shorter diagonal.

### ELEMENTARY CHEMISTRY AND PHYSICS.

1. Explain the construction of a barometer and state its uses.

2. A mixture of ice and water is placed in a flask in which there is a thermometer, and the flask is heated until both the ice and water have apparently disappeared. Describe what happens and state how the thermometer is affected.

3. A gun was fired at a distance of 3 miles from an observer who heard the report 10 seconds after he saw the flash. What was the velocity of the sound?

4. A wire carrying a current of electricity passes over and parallel to a freely suspended magnetic needle. How is the needle affected? If the wire is placed at right angles to the needle what happens?

5. Draw a diagram showing the passage of a ray of light through a piece of glass. Mark clearly the angles of incidence and refraction. Under what conditions is there no refraction and when is the light split up into different colours?

6. What would be the effect of strongly heating in air.

- (i) chalk;
- (ii) iron filings; and
- (iii) magnesium?

7. Describe a process for obtaining pure water. How could you show that ordinary drinking water is not pure?

8. If 18 grains of oxygen be mixed with  $2\frac{1}{2}$  grains of hydrogen and the mixture exploded, how much water will be produced?

### BOOK-KEEPING.

1. What is understood by the signs Dr. and Cr.?

Show how you will put with the signs Dr. and Cr. the following transactions of Henry Jackson before making Journal entries of them:—

- (i) He bought goods of A on credit.
- (ii) He bought goods of A for ready money.

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- (iii) He sold goods to A on credit.
- (iv) He sold goods to A for ready money.
- (v) He paid wages of attendant.

2. State briefly what you know of the following :—

- (a) Real accounts,
- (b) Balance Sheet,
- (c) Capital,
- (d) Revenue Accounts,
- (e) Double entry,
- (f) Ledger,
- (g) Transfers.

3. Distinguish between a Debtor balance and a Creditor balance. Give three examples of each.

4. What is a Trial balance? What is its object and how is it effected?

5. Describe fully the process by which a merchant can ascertain :—

- (a) the profit and loss arising from the transactions recorded,
- (b) the state of each account on the date on which the books are closed.

6. What is the principal characteristic of the Continental System? What are its disadvantages?

7. Thomas Brown's Assets and Liabilities on 1st April, 1902, were as follows :—

*Assets.*

Cash	...	...	£ 100
Bank	...	...	„ 1,000
Due from A. Smith	...	...	„ 100
Sugar worth	...	...	„ 500

*Liabilities.*

Due to R. Jackson	...	£ 50
-------------------	-----	------

His transactions during the month were :—

April 3rd Paid to T. Thomas	...	...	£ 50
„ 5th Received of A. John	...	...	„ 25
„ 10th Bought sugar from Browne	...	...	„ 100
„ 12th Sold sugar to C. Peters	...	...	„ 200
„ 13th Received Cash from C. Peters,	...	...	„ 200
„ 14th Paid Browne by cheque	...	...	„ 100
„ 15th Withdrawn from Bank	...	...	„ 500

April 16th Bought Sugar for Cash	£ 400
" 17th Paid into Bank	" 100
" 30th Paid for petty repairs to shop	" 10
" " Paid attendant's wages	" 10
" " Received from A. Smith	" 50
" " Paid into Bank	" 50
Value of Sugar	" 900

Rule out a Ledger and post the above into it ; prepare a Profit and Loss account and Balance sheet.

8. Rule a form for a Cash Book suitable for recording the transactions in question 7 above. Balance the Cash Book and state the Balance of Cash on hand.

### POLITICAL ECONOMY.

1. Define the economic meaning of the term Wealth.

Are the following wealth in Political Economy :—

- (1) Climate.
- (2) A strong and active population.
- (3) Mental qualities of the people ?

2. Explain briefly the chief causes on which productiveness of labour depends.

3. Why is rent paid, what fixes its amount ?

Is a corn-grower able to charge a higher price for his corn because he pays a high rent.

4. How far is it true to say that wages depend on the ratio of population to capital ?

5. Explain how far the value of commodities depends on "supply and demand ;" and how far on "cost of production ;" being in each case careful to define the sense in which you use these words.

6. What class of persons gains by rising prices ? Why are fluctuations in price generally disadvantageous to the community ?

## ENTRANCE AND SCHOOL FINAL-EXAMINATIONS, 1904.

### ENGLISH.—FIRST PAPER.

#### SECTION A.

1. Write a short account of ONE of the following :—  
Goldsmith ; Macaulay ; Washington Irving.

(Answer not to occupy more than one page of your answer book.)

2. Explain the following passages, giving the context in each case :—



(a) "Thus fares the land, by luxury betray'd,  
In nature's simplest charms at first array'd :  
But verging to decline, its splendours rise,  
Its vistas strike, its palaces surprise."

(b) "The very same day I went on board we set sail, standing away to the northward upon our own coast, with design to stretch over for the African coast. We passed the Line in about twelve days' time, and were, by our last observation, in seven degrees twenty-two minutes northern latitude when a violent tornado, or hurricane, took us quite, out of our knowledge."

Bring out clearly the meaning of the "Line."

What coast is here referred to as "our own coast."

(c) "Near yonder thorn, that lifts its head on high,  
Where once the sign-post caught the passing eye,  
Low lies the house where nut-brown draughts inspir'd,  
Where grey-beard mirth and smiling talk retir'd,  
When village statesmen talked with looks profound,  
And news much older than their ale went round."

(d) "He talked to them of the injury done him, of the condition they brought to, and that though the governor had given them quarter for their lives as to the present action, yet that if they were sent to England, they would all be hanged in chains, to be sure; but that if they would join in so just an attempt as to recover their ship, he would have the governor's engagement for their pardon."

## SECTION B.

1. Write a brief outline of Irving's "Rosecoe."

(This is not to occupy more than 2 pages of your answer-book.)

2. Write short notes on the following:—

Janiculum; Auburn; Charleote; Ichabod Crane.

3. Bring out clearly the meanings of the following expressions:—transitory splendours; equinoctial fervours; diadem of towers; men of prowess; white faces in the quarterings; spectre bridegroom.

## SECTION C.

IV. Explain the following passages, giving the context ;

- (a) "I wis in all the Senate, There was no heart so bold;  
But sore it ached and fast it beat, When that ill  
news was told."

What "ill news" is here meant?

(b) There is in every true woman's heart a spark of heavenly fire, which lies dormant in the broad daylight of prosperity, but which kindles up and beams and blazes in the dark hour of adversity."

(c) "And plainly and more plainly, Now might the  
burghers know,

By port and vest, by horse and crest, Each warlike  
Lucumo."

What do you understand by "burghers" and  
"Lucumo?"

(d) "These hardy exercises produce a healthful tone of mind and spirit, and a manliness and simplicity of manners, which even the follies and dissipations of the town cannot easily pervert and can never entirely destroy."

2. (a) "It is the idle who complain they cannot find time to do that which they fancy they wish. In truth, people can generally make time for what they choose to do; it is not really the time but the will that is wanting; and the advantage of leisure is mainly that we may have the power of choosing our own work, not certainly that it confers any privilege of idleness. Time travels in divers paces with divers persons. I'll tell you who time ambles withal who time trots withal, who time gallops withal, and who he stands still withal."

Give the substance of the above passage in your own words.

(b) In the following extract explain the expressions in large type :—

"He was a man of **ORDINARY EXTRACTION**, yet enough by his father to give him a good education, which **HIS OWN INCLINATION** disposed him to receive in the University of Oxford; where he took the degree of Master of Arts; and was versed in books for a man **WHO IN-**

TENDED NOT TO BE OF ANY PROFESSION, having enough of his own to MAINTAIN him in the plenty he AFFECTED, and having then no APPEARANCE OF AMBITION to be A BETTER MAN THAN HE WAS."

## ENGLISH.—SECOND PAPER.

### D.

Read the following passage carefully before answering questions 1, 2, 3.

At Hounslow, where James had formed a camp, the very soldiers with whose help James hoped to put down all resistance, shouted like the rest. James, who was there, asked what it all meant. "Nothing" he was told; "the soldiers are glad that the bishops are acquitted."

"Do you call that nothing?" he answered, "so much the worse for them."

1. Name the parts of speech to which the following words belong, giving your reason in each instance: *where, very, down, like, that, what, that, so*.

2. What are *subjects* and *objects* (if any) of the verbs—*hoped, shouted, asked, do, call*.

What verb would you supply for the last sentence? "So much the worse for them."

3. Give a list of the Prepositions used in the passage, and state what words are affected by them.

### E.

1. Write down (in three columns the past tense, the present participle, and the past participle, of the verbs:—

*Cost, drink, forsake, go, loose, settle, shoe, spin, stride, lay, lie, prefer, swim, fly.*

2. Write down three sentences in which the word "following" is used as a Participle, an Adjective, and a Verbal Noun respectively.

3. Show by writing sentences the uses of "do" (1) as an ordinary verb, (2) as an auxiliary verb.

4. Form adverbs from—*true, day, three, whole, possible,*

What rules would you give with regard to the position of an adverb in a sentence? Compose sentences to illustrate your answer.

5. Write sentences showing the use of the following conjunction (1) *though*, (2) *unless*, (3) *till*, (4) *lest*, (5) *because*, (6) *as*.

F.

1. Analyse in tabular form—

He promised solemnly to his men that he would comply with their request, provided that they would accompany him and obey his commands for three days longer, and if during that time land were not discovered, he would then abandon the enterprise and direct his course towards Spain.

2. Re-write the passage given in the last question in the Direct Speech.

3. Re-write in the Indirect Speech.

Mr. Ghose said, "But how did your child die? Until you are able to give me some information on this point, it will not be possible to defend you properly."

Malek gloomily replied, "I know nothing about it!" "You must know something; and unless you tell us the truth on this point we can do nothing. Your case is an extremely difficult one."

"I know nothing."

"But why does your own daughter accuse you of the murder?"

"Her statements are false. My wife and daughter have both been saying what they were taught to say."

### URDU.—THIRD PAPER.

Translate into English:—

(a) اس ملک کے ہر شہر میں جانوروں پر ظالم کو روکنے کے لئے انجمن قائم کرنی چاہئے۔ ایسی انجمن کے قائم کرنے کی ضرورت یہ ہے بوجہ لادنے کے جانوروں کے تکلیف پر اس ملک کے باشندے کچھ بھی توجہ نہیں کرتے۔ اس ملک میں ایسے جانوروں پر ظالم ہونا کون نہیں دیکھتا۔ کیا تمہیں ایسے

بیلوں کو نہیں دیکھا جنکی دم ہانکنے والوں کے ظلم سے گھاٹل ہو گئے ہیں؟ یا جو اپنی پیٹھ ار گردن کے گھاؤ سے بیگم ہو گئے ہیں؟ یہی حالت بھیسوں اور گھوڑوں اور گدھوں کی بھی ہے۔ ہم ایسے گھوڑوں اور گدھوں کو اکثر دیکھتے ہیں جو بھوکے اور ادھے مرے ہو رہے ہیں اور جنکو اپنا چارہ آپ ہی تھوندھنا پڑتا ہے جو اتنے دبلے ہو رہے ہیں کہ انکو کھڑا ہونا بھی مشکل ہے اور جنکے بدن میں صرف چھوڑا اور دھبی باقی رہ گئی ہے۔ ہمارا یہ فرض ہے کہ ان جانوروں کے ساتھ جو ایسی محنت سے ہمارا کام کرتے ہیں رحم سے پیش آویں۔

(b) ملک چین کے کسی بادشاہ نے سنا کہ اُسکی سلطنت کے دور دراز حصہ میں کچھ لوگوں نے بلوا کیا ہے بادشاہ نے اپنے وزیروں کو اکٹھا کر کے کہا کہ چلو دشمنوں کو جلدی سے تباہ کر آویں۔ بادشاہ کے وہاں پہونچتے ہی اُسکے سب دشمن مطیح ہو گئے تب سب لوگوں نے یہ سہجھا کہ بادشاہ اب دشمنوں کو پوری سزا دیگا۔ لیکن وہ تو ایسی آہستگی اور رحم دلی سے اُنکے ساتھ برتاؤ کرنے لگا کہ اس امر کو دیکھ کر سب لوگ متعجب ہو گئے۔ وزیر اعظم نے رنجیدہ ہو کر بادشاہ سے عرض کیا کہ حضور نے تو یہ قول کیا تھا کہ دشمنوں کو تباہ کرینگے لیکن اس وعدہ کے برخلاف حضور دشمنوں کو معاف کر رہے ہیں اور ان سے بڑی انسانیت کے ساتھ پیش آرہے ہیں۔ اس سے کیا حضور کا قول جھوٹا نہیں ہوتا؟ بادشاہ نے جواب دیا کہ نہیں میری بات جھوٹی نہیں ہوئی بلکہ سچی ہی تھی۔ میں نے کہا تھا کہ میں دشمنوں کو تباہ کرونگا دیکھو اب میرا کوئی دشمن ہی نہیں رہ گیا سب لوگ میرے دوست ہو گئے ہیں۔

## HINDI—THIRD PAPER

Translate into English :—

पशुओं पर क्रूरता रोकने के लिये इस देश के हर शहर में सभा स्थापित करना चाहिये । ऐसी सभा स्थापित करने का प्रयोजन यह है कि बोझा ढोने वाले पशुओं के क्लेश पर इस देश के लोग कुछ भी ध्यान नहीं देते । इस देश में ऐसे पशुओं पर क्रूरता नगरों में कौन नहीं देखता । क्या तुमने ऐसे बैलों को नहीं देखा जिनकी पूंछ हांकने वालों की क्रूरता से घायल हो गई हैं । अथवा जो पीठ के और गर्दन के घाव से बेकाम हो गये हैं । यही दशा भैसों और घोड़ों और गधों की भी है । हम बहुधा ऐसे घोड़ों और गधों को देखते हैं जो भूखे और अधमरे हो रहे हैं और जिन को अपना चारा आप ही ढूँढ़ना पड़ता है । जो ऐसे दुर्बल हो रहे हैं कि उनको खड़ा होना भी कठिन है और जिन के अङ्ग में केवल चमड़ा और हड्डी ही शेष रह गई है । हमारा धर्म है कि उन पशुओं पर जो ऐसे परिश्रम से हमारा काम करते हैं दया के साथ बर्ताव करें ।

चीन देश के किसी बादशाह ने सुना कि राज्य के दूर देश में कुछ लोगों ने बलवा किया है । बादशाह ने अपने मंत्रियों को इकट्ठा कर कहा कि चलो शीघ्र शत्रुओं का नाश कर आर्ये । बादशाह के वहाँ पहुँचते ही सब दुश्मन उनके आधीन हो गये । तब सब लोगों ने यह समझा कि बादशाह अब शत्रुओं को अच्छी तरह दण्ड देंगे । परन्तु वे तो ऐसी धीरता से और दया भाव से उनके साथ बर्ताव करने लगे कि इसको देख कर सब कोई अचरज मानने लगे । प्रधान मंत्री ने खुनसा कर बादशाह से कहा कि आप ने

तो यह प्रतिज्ञा की थी कि शत्रुओं का नाश करेंगे। पर उस बात को तोड़ कर आप सब शत्रुओं को क्षमा कर रहे हैं। और उनसे बड़ी भलमनसात के साथ वर्ताव करते हैं। इससे क्या आप की प्रतिज्ञा सिध्दा नहीं होती है। वादशाह बोले नहीं तो। मेरी बात तो झूठी नहीं भई वल्कि सच्ची ही ठहरी। मैंने कहा था कि मैं शत्रुओं का नाश करूंगा। देखो अब मेरा कोई शत्रु नहीं रह गया सब लोग हमारे मित्र हो गये हैं ॥

### MATHEMATICS.—FIRST PAPER.

1. Simplify—

$$(a) \frac{44\text{£}}{11 + \frac{1}{7 + \frac{3}{8\frac{1}{2}}}} \div \frac{1}{2} \text{ of } \text{£}1. 13\text{s. } 4\text{d.}$$

$$(b) \frac{.00281 \times .0625}{1.405}.$$

2. (a) A bankrupt's liabilities are £ 6,235, 10s. and he pays his creditors 5s. 6d. in the pound. Find by Practice the amount of his assets.

(b) Find the square-root of 10.001 correct to four places of decimals.

3. If 3 per cent. more be gained by selling a horse for £ 83, 5s. than by selling him for £ 81, what is the original price of the horse ?

4. What will Rs. 1,000 amount to, in 3 years, at 5 per cent. per annum compound interest ?

5. If the 3 per cent. Consols are at 92½, what sum of money must be invested in this stock to get an annual income of £ 630, brokerage being ½ per cent. ?

6. (a) Find the L.C.M. of  $2x^3 - 5x - 39$  and  $x^4 - 21x - 18$ .

(b) Extract the square-root of

$$a^2 + \frac{1}{a^2} - 2\left(a + \frac{1}{a}\right) + 3.$$

7. Simplify:—

$$\frac{bc(x-a)^2}{(a-b)(a-c)} + \frac{ac(x-b)^2}{(b-c)(b-a)} + \frac{ab(x-c)^2}{(c-a)(c-b)}.$$

8. Solve:—

$$(i) \frac{a}{x+b} + \frac{b}{x+a} = \frac{a+b}{x}.$$

$$(ii) \frac{x}{2} + \frac{2}{y} = 1\frac{1}{4}.$$

$$\frac{x}{3} + \frac{3}{y} = 1\frac{2}{3}.$$

9. How many minutes does it want to four o'clock, if three-quarters of an hour ago it was twice as many minutes past two?

10. Shew that, if  $\frac{a_1}{b_1} = \frac{a_2}{b_2} = \dots = \frac{a_n}{b_n}$ , then each of these

fractions

$$= \left\{ \frac{\lambda_1 a_1^m + \lambda_2 a_2^m + \dots + \lambda_n a_n^m}{\lambda_1 b_1^m + \lambda_2 b_2^m + \dots + \lambda_n b_n^m} \right\}^{\frac{1}{m}},$$

where  $\lambda_1, \lambda_2, \dots, \lambda_n$  and  $m$  are any quantities whatever.

### MATHEMATICS.—SECOND PAPER.

1. (a) Any two sides of a triangle are together greater than the third side.

(b) In a triangle any two sides are together greater than twice the median which bisects the remaining side.

2. (a) Triangles on the same base, and between the same parallels, are equal in area.



(b) Describe an isosceles triangle equal in area to a given triangle and standing on the same base.

3.  $ABC$  is an obtuse-angled triangle, having the obtuse angle at  $C$ , and  $D$  is the foot of the perpendicular drawn from  $A$  on  $BC$  produced. Prove that the square on  $AB$  is greater than the squares on  $BC$ ,  $CA$ , by twice the rectangle  $BC$ ,  $CD$ .

4. (a) Equal chords in a circle are equidistant from the centre.

(b) If two equal chords of a circle intersect, shew that the segments of the one are equal respectively to the segments of the other.

5. (a) If a straight line touch a circle, and from the point of contact a chord be drawn, the angles which this chord makes with the tangent shall be equal to the angles in the alternate segments of the circle.

(b) Two tangents  $AP$ ,  $AQ$ , are drawn to a circle, and  $B$  is the middle point of the arc  $PQ$ , convex to  $A$ . Shew that  $PB$  bisects the angle  $APQ$ .

6. Circumscribe a circle about a given triangle.

7. (a) A man travels 10 miles due North, then 20 miles due East, finally 31 miles due South; what is then his distance from the starting point?

(b) The chord of an arc of a circle is 16 feet, and the chord of half the arc is 10 feet; find the diameter of the circle.

8. (a) A three-mile race is to be run on a circular track whose radius is 48 yards; how many times must the winner run round? [ $\pi = 3\frac{1}{2}$ .]

(b) A circular lawn, 220 yards in diameter, is surrounded by a path 4 yards wide. Find the area of the path. [ $\pi = 3\frac{1}{2}$ .]

9. The sides of a quadrilateral taken in order are 30, 40, 34 and 24 feet, and the angle contained by the first two is a right angle; find the area of the quadrilateral.

10. Draw a plan of the field and find its area from the following notes, the lengths being expressed in links :—

50 0 From	to	A	0 50 range to A
		650	
		500	
		350	
60 From		200	turn left.
	to	C	
		520	
		300	
From		B	80 go East.
	to	B	
		390	
		200	
		A	

### ARABIC.—FIRST PAPER.

1. Translate the following into English :—

(a) من التجارية المسبلوبة من نعمتها المهدوعة في عقلها  
الهارقة لحبيب قلبها - اما بعد فقد ورد كتابكم علي فشرح  
الصدر و سر الخطرو كان كقول الشاعر \*  
ورد الكتاب فلا عدت انا ملا \* كتبت به حتى تضح طيبا  
فكان موسى قد اعيد لاسه \* او ثوب يوسف قد اتى يعقوبا

(b) نعم ان الهرايب هذا انها تعطي غالباً بالههابة والاستحباب  
لأبالاستحقاق والاستيحاب فان الأمير اذا نوه بشخص من اقاربه  
او معارفه عند ذي مرتبة و سيادة نفذت كلمته عنده ولو ان  
شخصاً متصفاً باحسن الاخلاق و متعلماً بالعلم والفضل حاول  
بنفسه ان يقال تلك الرتبة لم يلبثت اليه - الا ان هذا الداء  
عام في جميع الههالك \*

(c) فقل ان ضهرة الاسدي كان قتلاً للرجال منازللاً للابطال  
و كان مع ذالك نحيفاً قصيراً تنبؤ العين عنه - و كان قد قتل  
فاساً من العرب ثم ان فعيان بن الهنذر اللخمي جهج له الجواسد

و جعل فيه الجعائل و اعياء ذالك - فكتب اليه باسمان و جعل  
له مائة من الابل ان اتاه - فقدم عليه - فلما راه نبت عينه  
عنه و از دراه و استصغر امره و قال انت ضهرة الاسدي الذي  
بلغني عنه ما بلغ - قال نعم - فقال الذعمان تسبح بالهبيدي  
خير من ان تراه \*

2. Give the (تعليق) of the words marked, and explain the phrases underlined in the above extracts.

3. Translate the following into English:—

يادهر مهلاً كم تجور و تعتدي \* ولكم باخواني تروح و تغتدي  
ما آن ان ترثي لطول تشتتي \* و ترق با من قلبه كالجهد  
واسأت احبابي بها اشتهت بي \* كل العداة بها صنعت من الردي  
وقد اشتفي قلب العدو بها رأي \* من غربتي و صبابتي و توحدتي

4. Rewrite any of the above extracts, supplying them with diacritical marks (اعراب).

5. What are the different kinds of objects (مفعول) in Arabic? Define them and give examples of each.

6. Distinguish between the following:—

(a) رفع and معرب. (b) اعراب and حركة. (c) اسم فاعل and فاعل. (d) اسم مفعول and فاعل. (e) اسم ظرف and ظرف. (f) اسم مفعول and فاعل. (g) اسم فاعل and فاعل.

## ARABIC.—SECOND PAPER.

1. Translate into English:—

ان تكومني اكرمك - اذا طلعت الشمس لاح الصبح - اتني  
اخوه باكيا - زيد ابوه كاتب - العاقل من يجتنب كباثر الا  
ثم و صغائره - اين راح زيد - سارالي السوق فسرنا معه - هذا  
طفل يلعب بالتراب - الحياء خير كله - البلاء موكل بالهنتق -  
عفو الملوک ابقاء المهلك - كاد الفقر ان يكون كفرا - سيد القوم  
خادمهم - الشاهد يري ما لا يراه الغائب - ذهبت اليه وقت

الظهيرۃ - جلس زيد تحت شجرة متكيا - ربنا ما خلقت هذا  
باطلا - انا اعز من كتب هذا الكتاب - قلب الغافل في لسانه -  
و لسان العاقل في جذانه \*

سئل الحكيم ديو جانس الكلمبي اي وقت خير للاكل - قال  
المغني اذا اشتهي و للمفقيرو اذا وجد \*  
قال لقمان مخاطبا لابنه - يا بني عليك باكتساب العلم  
فان القلب الهيت يعيبي بالعلم \*

2. Translate into Arabic with diacritical marks:—

Whence didst thou come? Why did you (dual) come? Did you (dual) come from your house? Where did you (plural) come from? When didst thou go to thy father? Go to your (dual) brother. I will come to-morrow. The husband of Zainab is a wise man. He has three daughters and four brothers. The names of my brothers are Sulaiman and Ismail. Who is this man? Who are these men (dual)? Who are these men (plural)? Who are these women (dual)? Who are these women (plural)? What are you doing? This is Ahmad's pen. That book is Yusuf's. What city do they come from? They come from Egypt. Stand here. Go there. Your father is a virtuous man. I saw your father yesterday. I went to your father to-day.

### PERSIAN. — FIRST PAPER.

1. Translate the following into English and explain the allusions referred to:—

A.

جوهر اگر در آفتاب ههان نفیس است و غبار اگر بر  
فلک رود ههان خسیس - استعدادان بے تربیب دریغست و تربیت  
نامستعد ضائع - خاکستر نسبت عالی دارد که آتش جوهر علوی  
است و لیکن چون بنفس خود هنرے ندارد با خاک برابرست -  
و قیمت شکر نه از نی است که آن خود خاصیت وی است \*

مثنوی

حوکنعان را طبیعت بے هنر بود \* پیهمبر زادگی قدرش نیفزود  
هنر بیهائے اگر داری نه گوهر \* گل از خارست و ابراهیم از آزر

B.

درین وقت لامعانه چندان خلق در مصر بود که آنچه در  
نیشاپور بودند خمس ایشان بجهت بود و هر که مقدار داند  
معلوم او باشد که کسی را چند مال باید تا غله او این مقدار  
باشد و چه ایمن رعیت و عادل سلطانی بود که در ایام ایشان  
چنین حالها باشد و چندین مالها که نه سلطان بر کسے ظلم  
و جور کند و نه رعیت چیزی پنهان و پوشیده دارد \*

2. Translate the following into English :—

A.

زبس گوهرن گوش کردن کشان \* شده چشم بیننده گوهر فشان  
زتابنده یاقوت رخسار اعل \* خرابنده را آتشین گشت فعل  
مگر کان و دریا بهم قاختند \* همه جوهر اینجای بر انداختند  
زن زیورک از سیرت شان او \* در آن داوری شد هراسان او  
که این کاردان مرد آهسته راے \* چرا رسم خدمت نیارد بجای  
درو کرد باید یزو هندگی \* که از ما ندارد شکوهندگی  
ز سر تا قدم دید در شهر یار \* زریخته را بر محک زد عیار

B.

افشای راز خلوتیان خواست کرد شمع  
شکر خدا که سر دلش بر زبان گرفت  
میخواست گل که دم زند از رنگ و بوے تو  
از غیرتش صبا نفس اندر دهان گرفت  
چون لاله کج نهاد کلاه طرب ز کبر  
هر داغ دل که باد چون ارغوان گرفت  
آن روز عشق ساغر می خرمم بسوخت  
کاتش ز عکس عارض ساقی دران گرفت

3. Explain clearly in Persian :—

این کهنه رباط را که عالم نام است  
آرامگاه ابلق صبح و شام است

بزمیست که و امانده صد جهشید است  
 قصریت که تکیه گاه صد بهرام است  
 روزی که جزای هر صفت خواهد بود  
 قدر تو بقدر معرفت خواهد بود  
 در حسن صفت گوش که در روز جزا  
 حشر تو بصورت صفت خواهد بود

4. Analyse the last couplet in question 3 according to Persian grammar.

5. Mention half a dozen Persian Infinitives which can be used both transitively and intransitively, giving examples of each with their meanings.

6. Write short notes on the following:—

روح القدس -- سدرةالمنتهی -- آل عبا -- احرام -- صوفي  
 مسجدالحرام -- جام جم -- رند \*

#### PERSIAN.—SECOND PAPER.

1. Translate the following passages into English:—

(a) قلب انسان که هنوز شامل بگناهی نشده است چون آئینه روشن است - و صفت آئینه این است که تا هنگامی که آن را از زنگار و غبار و گرد پاک دارند شفاف بوده و شفافیتی میدهد و آن چون غباری بر آن نشست روشنی آن روبه کاهش میدهد - و اگر در صفائی آن نکوشند کم کم غبار تمام آئینه را گرفته و روشنی اش را بتاریکی بدل کرده از درجه اعتبار خواهد انداخت و همچنان دل انسان - اگر انسان از اول خود داری ناهوده دامن خود را بگناهی بیالاید گرد گناه بر آئینه دلش نشسته رفته رفته رفقه مرآت خاطرش از زنگار معصیت تاریک شده قوت بینائی از او میروند چنان که خوب از به و ثواب از گناه غرق کردن نتواند و ازین رو در دریای معصیت مستغرق شده درجه پستی و نژندی که دوزخ مقصود از آنست حاصل نهوده همواره گرفتار رنج و محنت

و زحمت خواهد بود - لهذا ما را باید که هر دم آئینه قلب را  
 از زنگار گناه پاک و دل را صاف و سپید بداریم \*  
 (b) معادن نفیسه در ایران فراوان نیست بلکه آهن و سرب  
 در بسیاری از اطراف این ملک یافت میشود - اهالی ایران  
 مدعی آنند که معادن طلا نقره هر دو درین مملکت یافت  
 میشود لکن هرگز فایده بر این معادن متروک نشده است -  
 مسعود افغان که معدن طلائی در فارس - و معدن نقره در  
 آذر بایجان پیدا شد اما بقدری یافت نمے شد که معادل  
 باخرج بیرون آوردن آن باشد - و لهذا همیشه طلا و نقره  
 ایران از بلاد دیگر بوده است \*

## 2. Translate into Persian:—

(a) When Abraham sat at his tent door, according to his custom, waiting to entertain strangers, he espied an old man, stooping and leaning on his staff, weary with age and travel, coming towards him. He received him kindly washed his feet, provided supper and caused him to sit down; but observing that the old man ate and prayed not nor begged for a blessing on his meal, he asked why he did not worship the God of heaven. The old man told him that he worshipped the fire only, and acknowledge no other god. At which answer Abraham grew so zealously angry that he thrust the old man out of his tent and exposed him to all the dangers of the night, unprotected as he was. When the old man was gone, God called to Abraham and asked him where the stranger was. He replied: "I thrust him away because he did not worship Thee." God answered him, "I have suffered him these hundred years although he dishonoured me; and couldst thou not endure him one night, when he gave thee no trouble?" Upon this, saith the story, Abraham fetched him back again and gave him hospitable-entertainment and wise instruction. Go thou and do likewise, and thy charity will be rewarded by the God of Abraham.

(b) There are numbers of persons in India who obtain their whole living by begging and who bring up their children to the same occupation. They are wretched and vicious. They earn nothing themselves and live by diminishing the earnings of others. How much better would it be for all such persons if, by being

left either to labour or to starve, they, were taught the necessity of industry, and thus rendered useful, honest, respectable, and virtuous members of socceity ?

### SANSKRIT.—FIRST PAPER.

1. अथ गच्छता कालेन सकलमपि कवलितं मण्डूककुलम् ।  
केवलमेको गङ्गदत्तस्तिष्ठति । ततः प्रियदर्शनेन भणितम् ।  
 भो गङ्गदत्त बुभुक्षितोऽहम् । निःशेषिताः सर्वे मण्डूकाः ।  
 तद्दीयतां मे किञ्चिद्भोजनम् । यतोऽहं त्वयान्नानीतः । स  
 आह । भो मित्र न स्वयन्न विषये कापि चिन्ता कार्या ।  
 तद्यदि मां प्रेषयिष्यसि । ततोऽन्यकूपस्थानपि मण्डूकान्  
 विश्वास्यान्नानयासि ॥

(a) State the धातु and प्रत्यय in विश्वास्य and भोजनम्.

(b) Parse the underlined words.

(c) Decline गच्छत् and अस्मत् in the accusative case.

2. Translate into English:—

द्वावुपायाविह प्रोक्तौ विमुक्तौ शत्रुदर्शने ।

हस्तयोश्चालनादेको द्वितीयः पादवेगजः ॥

चलत्येकेन पादेन तिष्ठत्येकेन बुद्धिमान् ।

नासमीक्ष्य परं स्थानं पूर्वमायतनं त्यजेत् ॥

(a) Conjugate the roots of तिष्ठति, अस्ति and त्यजेत् in the preterite (लिट्)

(b) State the rules of Sandhi in the underlined words.

(c) Decline बुद्धिम् and विमुक्ति in the objective case (द्वितीया).

3. Translate into English or Hindi:—

मनसा चिन्तितं कार्यं वचसा न प्रकाशयेत् ।

अन्यलक्षितकार्यस्य यतः सिद्धिर्न जायते ।



सृष्ट्वट इव सुखभेद्यो दुःसन्धानश्च दुर्जनो भवति ।

सुजनस्तु कनकवट इव दुर्भेदः सुकरसन्निधश्च ॥

4. Write out in Sanskrit prose order :—

(a) तेन सत्याभिसन्ध्येन त्रिवर्गननुतिष्ठता ।

पालिता सा पुरी श्रेष्ठा यथेन्द्रेणामरावती ॥

(b) सिद्धं वा यदि वाऽसिद्धं चित्तोत्साहो निवेदयेत् ॥

प्रथमं सर्वजन्तूनां तत्प्राज्ञो वेत्ति नेतरः ॥

(a) Parse the underlined words.

(b) Write down the meanings of त्रिवर्ग and अभिसन्ध्या.

(c) Re-write extracts (a), changing the passive into the active construction.

5. Translate into English :—

अञ्जनस्य क्षयं दृष्ट्वा वल्मीकस्य च सञ्जयम् ।

अजन्म्यं दिवसं कुर्याद्दानाध्ययनकर्तुम् ॥

### SANSKRIT.—SECOND PAPER.

I. Translate into Sanskrit :—

(a) Why didst thou shut thy ears when Govinda was telling a story?

(b) Indra was the mightiest of all the Gods; therefore they crowned him King.

(c) The king of the Kalingas besieged Pataliputra.

(d) Sita (said): "I bow to these Rishis."

Rama: "These are the greatest of sages, named Sanaka; Sanandana and Sanatkumara."

Sita: "To my mind you are the greatest and best person."

(e) A lazy man sleeps for a long time.

II. Compose 3 short sentences using—in (1) the Third Person—Singular—Present Tense (जन्तु) form of the root भू; in (2) the Instrumental—Plural form of the word जन्तु and

in (3) the Third Person—Singular—First Preterite लङ् form of the root हम्

III. Translate into English any five of the following passages :—

(a) सत्यम्ब्रूयात्प्रियम्ब्रूयान् ब्रूयात्सत्यमप्रियम् ।

प्रियञ्च नानृतम्ब्रूयादेष धर्मः सनातनः ॥

(b) पापान्निवारयति योजयते हिताय

गुह्यानि गूहति गुणान् प्रकटीकरोति ।

आपद्गतञ्च न जहाति ददाति काले

सन्निव्रलक्षणमिदम्प्रवदन्ति सन्तः ॥

(c) हरिश्चन्द्रो नाम राजा आस । तस्य शतञ्जाया

बभूवुः । तामु पुत्रन् लेभे । तस्य गृहे पर्वतनारदावूषतुः ।

नारदस्याज्ञया यज्ञेन वरुणान्तुष्टाव ।

(d) श्रोत्रं श्रुतेनैव न कुण्डलेन दानेन पाणिर्न च कङ्कशेन ।

विभाति कायः किल मानुषाणा-

स्परोपकारैर्न तु चन्दनेन ॥

(e) चतस्रो विद्याश्चतुष्पष्टिङ्गलाश्च चन्द्रापीडोऽशिक्षत ।

सर्वासु च निपुणो भूत्वा पितुः प्रियो बभूव । युवा-

वस्यायान्देशाटनाय निर्जगाम । सकलास्भुवस्वश्चास ।

(f) त्रिःसप्तकृत्वः परशुरामः पृथिवीमक्षत्रियामकरोत् ।

स क्रूरस्वभाव आसीत् । बाल्यावस्थायामेव स्वकीयाम्मात-

रञ्जघान । जनकपुरे स रामचन्द्रेण निर्जितः शान्तो बभूव ।

(g) अस्मिन्मण्डपे समागतान् ब्राह्मणानहमजगणम् ।

पञ्च शतानि तेषां वर्तन्ते । एतेभ्योऽधुना दक्षिणान्दातुमार-

भस्व । तान् सन्तुष्टान् कुरु ॥

(h) अधुनैव सोऽत्रागत्य 'अयम्पुरुषो दुर्विनीतः, अयं सुविनीतः' इति बहु प्रालापीत ॥

## HISTORY.

1. Give a short account of Asoka.
2. What important historical events are connected with the following places :—Jalalabad, Assai, Wandewash, Plassey, Arcot, Panipat, Lucknow, Delhi.
- Give the dates of the events and indicate the position of each place.
3. Give brief account of Lord North brook's administration.
4. What is a Municipal Board and what are its duties ?
5. Mention the most important manufactures carried on in India.
6. In whose reigns did the following events take place ?  
(1) The discovery of America, (2) The Defeat of the Armada, (3) The battles of Crecy, Agincourt, Blenheim, Waterloo, (4) The Crimean War, (5) The American War of Independence, (6) The abolition of the Slave Trade. Give dates.
7. Explain the following terms.—Chartist, Jacobite, Bloody Assizes, Ship Money, Doomsday Book, Catholic Emancipation Ballot Act.
8. For what are the following noted :—William Caxton, John Wyclif, Simon de Montfort, Raleigh, Havelock, John Bunyan, Dupleix.

## GEOGRAPHY.

1. Draw a map of Turkey in Asia, marking its boundaries, divisions, chief rivers, mountain ranges, and principal cities.
2. The 30th parallel of North latitude passes nearly through Shiraz. What other countries, places and natural features does it traverse in both hemispheres ?

3. State what are the following and describe accurately the position of each:—Port Arthur, Sophia, Mekong, Belgrade, Seoul, Okhotsk, Sunda, Brisbane, Samoa, Panama, Cotopaxi, Yukon, Pennsylvania.

4. How would you explain to one who was ignorant of the subject, (a) the cause of day and night (b) the rotation of the seasons, and (c) why Siberia is colder than India?

5. Describe how the Sundarban at the mouth of the Ganges has been formed.

6. Define the following, giving an example of each:—Continent, longitude, basin, estuary, cereals, ruminants, Slavonic nations.

7. Describe the construction and uses of a barometer.

8. "In Alaska, the Russians who have arrived across Asia find their Sunday to be reckoned Saturday by the Americans who have arrived from the United States." Why is this so?

## GEOMETRICAL DRAWING.

*Time allowed—2 hours.*

*Note.*—Scale and figures to be neatly inked in, construction lines to be left in pencil.

1. The distance between two places on a map is  $13^{\circ} 67'$  inches while the actual distance apart of the places is 23 miles. Construct a scale for the map showing miles and furlongs.

2. Find by construction a fourth proportional to three given lines 2 inches  $1\frac{3}{4}$  inches, and  $1\frac{1}{2}$  inches long.

3.  $AB=3$  inches,  $BC=2\frac{1}{2}$  inches,  $CA=1\frac{1}{2}$  inches are the sides of a triangle. Draw an inscribed rhombus making one of its corners touch AB in a point  $1\frac{1}{4}$  inches from B.

4. Draw a straight line, and taking a point  $1\frac{1}{2}$  inches distant from it as centre, describe a circle of 1 inch radius. Draw a straight line touching this circle, and making an angle of  $30^{\circ}$  with the given straight line.

5. Construct a rhombus having its sides 2 inches long and one of its angles  $75^\circ$ . Within it inscribe two equal circles touching each other, and each touching two sides of the rhombus.

6. Make angles  $70^\circ$ ,  $115^\circ$ ,  $75^\circ$ ,  $135^\circ$ ,  $150^\circ$ , without using the protractor.

## ELEMENTARY PHYSICS AND CHEMISTRY.

1. What do you mean by the mass of a body? How is the mass of a body measured? What is the difference in meaning between the mass of a book and the weight of a book?

2. Make drawings of a spring balance and an ordinary balance and explain the principle on which each works.

3. What is meant by density? Explain clearly how you would determine the density of (a) kerosine oil (b) a small stone.

4. What happens when (a) sugar is placed in water, (b) zinc is placed in dilute sulphuric acid, and (c) marble is placed in hydrochloric acid?

5. Describe what takes place when (a) copper is dissolved in nitric acid and (b) the solution is evaporated. Will the residue weigh more or less than the original copper? Give reasons for your answer.

6. Describe the form and colour of crystals of sulphur, salt, sugar and alum. How can these crystals be produced? What would happen if crystals of (a) sulphur, (b) soda, and (c) salt were heated?

7. Describe the process by which salt can be extracted from sea water.

8. Some water is heated in a test-tube. At what temperature will it boil when the mercury in the barometer stands at 30 inches? If the barometer falls will it make any difference to the boiling point of the water? If some salt be put in the water, will that make any difference?

## BOOK-KEEPING.

1. Illustrate by examples what is meant by (i) Single entry, (ii) double entry, (iii) Capital, (iv) Depreciation, and state where-in lies the advantage of double entry.

2. How would you record the following each transactions of a merchant? What was his balance at hand at the close of the month?—

1st April, 1903.	Cash in hand	nil.
2nd     "     "	"   in the Allahabad Bank	£ 500
10th   "     "	Received from A	£ 20
12th   "     "	Paid into Bank	" 10
30th   "     "	To B his bill by a cheque on the Allahabad Bank	" 100
	Bought goods for cash	" 5
	Received from G	" 230
	" Sale proceeds	" 50

3. If I purchase sugar worth Rs. 50 from A and sell tea worth Rs. 40 to B, what entries are necessary in the Ledger?

4. What is a journal form? Rule out a form of journal according to the Continental system.

5. Describe fully the nature and purchase of

(i) transactions recorded in the Profit and Loss account of a merchant. How will you deal with a debit balance in this account?

(ii) the balance account in the Ledger.

6. State the distinction between a personal and real accounts.

7. Journalize the following transactions of William Jones and then post them into the Ledger.

Balance and close the Ledger :—

Assets.		Liabilities.	
£		—	£
Cash	100	Due to Roberts	50
Bank	1,000		
Due from E. Smith.	100		
10th June 1903.	Bought sugar of J. Edwards & Son		£ 1000
11th     "     "	Paid to Roberts		50
15th     "     "	Bought paper of W. Blake		550

		£
17th June 1903.	Sold sugar to Benjamin Smith	500
18th " "	Bought port from Smith & Co.,	100
20th " "	Received Cast from Benjamin Smith	500
21th " "	Paid to J. Edwards & Son	400
" " "	" J. Smith & Co.	100
22nd " "	Sold paper for Cash	1000
25th " "	Paid into Bank	500
28th " "	" W. Blake by cheque	500
30th " "	" Wages of Servants	100
" " "	" Postage Stamps	10
" " "	" Repairing business premises	10
Balance of goods on hand.		
	Sugar £300	
	Paper „ 300	
	Port „ 200	

8. What do you understand by the continental method and the English method? Shew clearly the exact difference between the two systems as regards posting the entries.

### POLITICAL ECONOMY.

1. Distinguish capital from wealth. Explain accurately the way in which capital promotes the productiveness of industry.
2. State the Law of Diminishing Returns.
3. Explain the economic theory of rent and indicate some of the chief causes which modify the effects of competition on rent.
4. Analyse carefully the circumstances that tend to make the average rate of interest in one country higher than in another.
5. Explain the phrases "immobility of labour" and "standard of comfort," and show how the facts they point to effect the wages question.
6. What is money, and what its chief functions? Mention with reasons the qualities a thing must possess in order to discharge those functions and name objects fitted to serve as money.
7. What are the conditions which precede and accompany international trade? Describe the economic advantages of foreign trade.
8. State as concisely as you can the arguments in favour of Free Trade, and examine some of the common pleas for Protection.

## ENTRANCE AND SCHOOL FINAL EXAMINATIONS, 1905.

## ENGLISH.—FIEST PAPER.

## A.

1. Explain the following passages, giving the substance of the context in each case:—

(a) "The butterfly is glancing bright  
Across the sunbeam's track;  
I care not now to chase its flight—  
Oh, call my brother back!"

(b) Ass waited a moment, as gentlemen can,  
And then, "Not presuming to teach," he began,  
"Permit me, to say, since my thoughts you invite,  
I always saw things in a different light."

(c) When the settled season began to come in, the thought of my design returned with the fair weather, and I was preparing daily for the voyage: the first thing I did was to lay by a certain quantity of provisions, being the stores for our voyage; and intended, in a week or fortnight's time, to open the dock, and launch out our boat. I was busy one morning upon something of this kind, when I called to Friday, and bid him go to the sea shore and see if he could find a turtle, a thing which we generally got once a week, for the sake of the eggs as well as the flesh. Friday had not been long gone, when he came running back, and flew over my outer wall, or fence, like one that felt not the ground; and before I had time to speak to him, he cried out to me, "O Master! O Master! O Sorrow! O bad!"

(d) The effect of this devotion of elegant minds to rural occupations has been wonderful on the face of the country. A great part of the island is rather level, and would be monotonous were it not for the charms of culture; but it is studded and gemmed, as it were, with castles and palaces, and embroidered with parks and gardens.

2. Write a short account, not exceeding two pages of your answer book, of the wreck of Crusoe's vessel and of his landing in the island.



B.

1. Write *short* notes on the following:—  
Trainband captain; Cophetua; Brave Kempenfelt; Norman's Woe.

2. Give, in your own words, the meaning of each of the following:—last night the moon had a golden ring; high-water mark; a shoulder-of-mutton sail; a tart temper never mellows; a world of staid counsel; make a Star-Chamber matter of it.

3. Give an account of Rip van Winkle's return to his village.

C.

1. Reproduce from memory (a) two stanzas of the poem entitled 'the Wreck of the Hesperus' beginning with the line 'And fast through the midnight dark and drear'; (b) the last Stanza of 'After Blenheim' beginning with the words 'And everybody praised the Duke.'

2. (a) Give in your own words the substance of the following passage:—

How much, thought I, has each of these volumes, now thrust aside with such indifference, cost some aching head! how many weary days, how many sleepless nights! How have their authors buried themselves in the solitude of cells and cloisters; shut themselves up from the face of man, and the still more blessed face of nature; and devoted themselves to painful research and intense reflection! And all for what? to occupy an inch of dusty shelf—to have the title of their words read now and then in a future age, by some drowsy churchman or casual straggler like myself; and in another age to be lost, even to remembrance. Such is the amount of this boasted immortality.

(b) In the following stanzas explain the italicised portions:—

"And now when busy crowds retire  
To take their evening rest,  
The Hermit *trimmed* his little fire,  
And cheered his *pensive* guest.

And spread his *vegetable store*,  
 And *gaily pressed*, and smiled ;  
 And skilled in *legendary lore*  
 The *lingering* hours *beguiled*."

## GRAMMAR.—SECOND PAPER.

### D.

1. Illustrate by *short sentences of your own construction* the differences in meaning or use between *all* and *whole* ; *any* and *some* ; *farther* and *further* ; *too* and *very* ; *many* and *many a* ; *either* and *other*.

2. Show what meanings the following nouns have in the singular number, and in the plural :—

*abuse, effect, custom, light, manner, letter.*

Form :—1. Adjectives (not participles) from *benefit, permit, number, study.*

2. Verbs from *fraud, gold, trust, just.*

3. Abstract nouns from *repeat, enemy, slay, advise.*

4. Give the past participles of the following verbs, pointing out the difference in use or meaning of the double forms :—

*bind, behold, hang, seethe, shear, strike, cleave (split).*

### E.

5. Parse the italicised words in the following sentences :—

They received every *man* a penny ; I meet him *every* other day ; Please find *me* an appointment : I told you *so* ; The boy shot the bird *dead* ; He attacked me *sword* in hand ; Schoolboys are taught *grammar* ; No *noise*, if you please ; A *horse* ! a horse ! My *kingdom* for a horse !

6. How can we tell whether a given sentence is *Simple, Complex, or Compound* in form ? Combine the following two sentences into (1) a Complex sentence, (2) a Compound sentence :—

He is but a child. He is remarkably intelligent.

7. Analyse in *tabular* form :—

And as Nature, who gives supplies of food to every creature, dictates even naturally how to make use of such food, so I, that had never milked a cow, much less a goat, or seen butter or cheese made, except only when I was a boy, after a great many essays and miscarriages, made me both butter and cheese at last, and also salt, and never wanted for them afterwards.

## F.

8. Express the following in the indirect form of speech, taking care to use appropriate reporting verbs :—

1. He said to me,—“Be sure I will not deceive you.”
2. The teacher said,—“See, this is where your mistake lies.”
3. “Off with you,” said the man,—“this is no place for you!”
4. “Hurrah! hurrah!” cried the boy,—“I stand first on the list.”
5. “Surely,” thought Rip, “I have not slept here all night.”

9. Expand each of the following simple sentences, into a Complex one :—

1. Our wishes were all granted.
2. I acknowledge your great kindness to me.
3. The Earl swore allegiance to the King.
4. The only question now is the degree of their guilt.
5. The origin of the story was fully related.

10. Reconstruct the following sentences according to the bracketed instructions :—

1. He is so headstrong that he will not take advice.—(Use *too* for *so*.)
2. I last saw him a month ago.—(Change *a month ago* into *for a month*.)
3. As soon as he saw me, he ran away.—(Use *no sooner* for *as soon*.)
4. It is better to live in the country than to live in the town.—(Use *preferable* in place of *better*.)

## THIRD PAPER.

1. Translate into English :—

## G.

بہتوں کی رائے ہے کہ لار پیار سے لڑکے بگڑ جاتے ہیں لیکن سوچ کر دیکھتا جاوے تو لڑکوں میں اچھی اچھی باتوں کا پودا پیار ہی سے جھٹتا ہے۔ ولایت کے ایک عالم نے لکھا ہے کہ میری ما کی بار بار چومنے نے مجھے علم تصویر کشی میں ہنرمند بنا دیا۔ جتنا اوستاد مدرسہ میں قرآن

اور سزا سے سالہائے دراز میں سکھلا سکتا ہے اور تذا لڑکا اپنے گھر میں اپنی ما کے طبعی محبت سے ایک دن میں سیکھ لیتا ہے۔ ما کی طبعی محبت کا اندازہ اس سے بڑھکر اور کیا ماسکتا ہے کہ لڑکا گتتا ہی روتا ہو یا اداس ہوتا ہو ما کے گود میں جاتے ہی چپ ہو جاتا ہے مصیبت دروزہ اور فکر پرورش اولاد اور اونکو خوش و خرم دیکھکر دلکو چین ہونا اور اونکو بیمار اور اداس دیکھکر بیکل ہونا یہ سب باتیں ما ہی میں پائی جاتی ہیں۔ لڑکا جب کپوت اور نکھا نکل جاوے تو باب اوسکا ساتھ نہیں دیتا۔ گھر سے نکال باہر کر دیتا ہے۔ لیکن ما اپنے شوہر کو چھوڑ کر اپنے نکھے بیٹے کا ساتھ دیتی ہے۔ دو چار نہیں بلکہ ہزاروں ایسی ما دیکھنے میں آئیں ہیں جنہوں نے لڑکے کی بچپن ہی میں باپ کے نہرنے پر مصیبتیں اوتھا اوتھا کر اپنے لڑکے کو پالا ہے اور اوسے پڑھا لکھا کر سب طور سے لائق کر دیا ما کا ایک بار کا دلاسا بیٹے کے لئے جتنا فائدہ بخش اور اوس کے دلپر موثر ہوتا ہے اور تذا باپ کے سو بار کی نصیحت اور سزا دہی بھی نہیں ہوتی \*

H.

شہر دہلی کے ایک اندھے بھیک منگے کے کتے کے بیان میں یہ لکھا گیا کہ نہ صرف یہی تھا کہ یہ جانور اپنے مالک کو خطروں سے بچا کر لئے پھرتا تھا بلکہ اوسنے اون گلیوں اور اون مکانات کو بھی پہچان لیا تھا جہاں اوسکے مالک کو دو تین بار ہر ہفتہ میں بھیک ملا کرتی تھی۔ جب کبھی اون گلیوں میں سے کسی میں پہونچتا جنسے وہ خوب آگاہ تھا وہ اونکو ہرگز نہیں چھوڑتا تا آنکہ ہر اس مکان پر حاضر نہو لیتا جہاں اوسکا مالک اکثر اپنی استعداد میں کامیاب ہوا کرتا تھا۔ جب وہ سائل بھیک مانگنے لگتا تو وہ کتا

سستمانے کو پڑ رہتا۔ مگر جیوں ہی اوسکو بھیک ملجاتی یا  
 افکار کیا جاتا تیوں ہی کتا خود بخود اوتھے کھڑا ہوتا اور  
 بلا حکم یا اشارہ کے اوسکے آگے کے گھر کی طرف بڑھتا۔  
 جب کوئی شخص کھڑکی سے ایک پیسہ پھینک دیتا تو اس  
 کتے کی ہوشیاری اور توجہ دیکھی جاتی تھی کہ وہ اس  
 پیسہ کی کھوج میں ادھر ادھر دور دورا پھرتا اور اپنے منہ  
 سے اوسکو زمین سے اُٹھا کر اوس بدھے فقیر کی جھولی میں  
 ڈال دیتا اور اگر کوئی شخص روٹی پھینک دیتا تو وہ کتا اوسے  
 ندچکتا جب تک کہ اوسے اپنے مالک کے ہاتھ سے نہ پاتا \*

1. Translate into English :—

G.

बहुतों का मत यह है कि लड़क़ प्यार से लड़के विगड़  
 जाते हैं पर विचार से देखा जाय तो बालकों में अच्छी  
 अच्छी बातों का अद्भुत प्यार ही से जनता है । विलायत के  
 एक विद्वान ने लिखा है कि मेरी मां के बार बार चूमने ने  
 मुझे चित्रकारी में प्रवीण कर दिया । गुरु जितना पाठशाला  
 में भय और ताड़ना दिखला कर वर्षों में सिखला सकता है  
 उतना अपने घर में लड़का मां के सहज स्नेह में एक दिन  
 में सीख लेता है मां के स्वभाविक प्रेम का प्रमाण इससे बढ़  
 कर और क्या मिल सकता है कि लड़का कितना ही रोता  
 हो या उदास हो लौ भी मां के गोद में जाते ही चुप हो  
 जाता है । प्रसव के समय की पीड़ा बच्चे के पालन पोषण  
 की चिन्ता, उसे नीरोग और खुशी देख कर चित्त का हुलास,  
 उसे बीमार और उदास देख कर विकल होना, ये सब बातें  
 माता ही में पायी जाती हैं । लड़का जब कुपूत और  
 निकम्मा निकल जाता है तो बाप उसका साथ नहीं देता ।

घर से निकाल बाहर कर देता है । पर मां बहुधा अपने पति को त्याग कर निकम्मे पुत्र का साथ देती है । दो चार नहीं वरन हजारों ऐसी मां देखने में आयी हैं जिन्होंने लड़के के बचपन ही में पिता के न रहने पर बड़े बड़े क्लेश उठा उठा कर अपने पुत्र को पाला और उसे पढ़ा लिखा कर सब भांति समर्थ और योग्य कर दिया । माता का एक बार का प्रोत्साहन पुत्र के लिये जैसा उपकारी और उसके चित्त में प्रभाव उत्पन्न करने वाला होता है वैसा पिता की सौ बेर की लाड़ना भी नहीं होती ॥

## H.

शहर दिल्ली के एक अन्धे भिखसंगे के कुत्ते के विषय में यह लिखा गया है कि न केवल वह जानवर अपने स्वामी को बिपत्तियों से बचाकर लिये फिरता था वरन उसने उन गलियों और उन सकानों को भी पहचान लिया था जहां उसके मालिक को दो तीन बार हर हफ्ते में भीख मिला करती थी । जब कभी उन गलियों में से किसी में पहुंचता जिस से कि वह बहुत परिचित होगया था वह उसको छोड़ दूसरे गली में न जाता जब तक हर एक घर पर हाजिर हो न लेता जहां उसके मालिक का मांगना बहुधा सफल हुआ करता था । जब वह भिक्षुक भीख मांगने लगता तब वह कुत्ता सुस्ताने को पड़ रहता । फिर ज्योंही भीख मिल जाती या न मिलने का जवाब मिल जाता त्योंही कुत्ता आप ही आप उठ खड़ा होता और बिना अपने मालिक के हुक्म या इशारे के उसके आगे के घर की ओर बढ़ता । जब कोई मनुष्य खिड़की से एक पैसा फेंक देता तब उस कुत्ते की बुद्धि और चौकसी देखने में आती थी कि वह उस पैसे की खोज

में इधर उधर ढूँढ़ता फिरता और अपने मुँह से पैसे को जमीन से उठा कर उस बूढ़े भिक्षु की फीलों में डाल देता। और अगर कोई मनुष्य रोटी फेंक देता तो उसे न भीखता जब तक कि उसे अपने स्वामी के हाथ से न पाता ॥

### MATHEMATICS.—FIRST PAPER.

1. (a) Simplify :

$$\frac{7\frac{1}{2}}{6\frac{1}{2}} + \frac{1\frac{1}{2} - \frac{2}{3}}{1\frac{1}{2} + \frac{2}{3}} \div 1\frac{1}{2} \text{ of } \frac{1}{2} \div \frac{1}{1 + 4\frac{1}{2}}$$

- (b) Find the value of  $\frac{1}{\sqrt{8}}$  correct to four places of decimals.

2. (a) Add together 175 of 1 ton, 83 of one cwt. and 93 of 1 lb. and reduce the sum to the decimal of 10 tons.

- (b) Find, by Practice, the rent of 3 acres 1 rood 27 poles of land at £ 16s. 8d. per acre.

3. By selling a horse for Rs. 50 a man lost 4 per cent; find what would have been his gain or loss per cent. if it had been sold for Rs. 60.

4. Find the discount on Rs. 1,000 due 3 months hence at 4 per cent. per annum.

5. A person transfers £ 1,000 stock from the 4 per cents. at 90 to the 3 per cents. at 72; find the alteration in his income.

6. (a) Find the H.C.F. of  $x^4 - 5x^2 + 4$  and  $x^5 - 11x + 10$ .

- (b) Extract the square root of

$$a^2 + (1 + a^2)(1 + a)^2.$$

7. Simplify :

$$\frac{(b+c)(x^2+a^2)}{(a-b)(a-c)} + \frac{(c+a)(x^2+b^2)}{(b-a)(b-c)} + \frac{(a+b)(x^2+c^2)}{(c-a)(c-b)}.$$

8. Solve:

$$(a) \frac{1}{x+2} + \frac{1}{x+10} = \frac{1}{x+4} + \frac{1}{x+8}$$

$$(b) \frac{x+3}{5} = \frac{8-y}{4} = \frac{3(x+y)}{8}$$

9. If  $a, b, c, d$  are in continued proportion, prove that:

$$(i) a:d = a^3 + b^3 + c^3 : b^3 + c^3 + d^3.$$

$$(ii) a^2d = b^3.$$

10. Coffee is brought at 1s. and chicory at 3d. per lb.; in what proportion must they be mixed, that 10 per cent. may be gained by selling the mixture at 11d. per lb.?

### MATHEMATICS.—SECOND PAPER.

1. (a) Triangles on equal bases, and between the same parallels, are equal in area.

(b) Shew that a trapezium is bisected by the straight line which joins the middle points of its parallel sides.

2. If the square described on one side of a triangle be equal to the sum of the squares described on the other two sides, then the angle contained by these two sides shall be equal to a right angle.

3. From two given points on the same side of a given straight line, draw two straight lines, which shall meet in the given straight line and make equal angles with it.

4. If a straight line is divided equally and also unequally, the rectangle contained by the unequal parts, and the square on the line between the points of section, are together equal to the square on half the line.

5. (a) The straight line drawn from the centre of a circle to the point of contact of the tangent is perpendicular to the tangent.

(b) If two circles are concentric, all tangents drawn from points on the circumference of the outer to the inner circle are equal.

6. Inscribe a circle in a given triangle.



7. A plank 17 feet long rests vertically against a perpendicular wall. How far must the bottom end be pulled out to lower the top end 2 feet?

(b) How often will a wheel 4 feet 2·4 inches in diameter turn round in 2 miles? [ $\pi = 3\frac{1}{2}$ .]

8. (a) The sides of a triangle are 51, 52 and 53 feet; find the length of the perpendicular from the opposite angle on the side of 52 feet.

(b) How long will it take a man to walk round a square field containing 40 acres, at the rate of 3 miles an hour?

9. An equilateral triangle is inscribed in a circle of radius 2 inches; find the area of the three segments exterior to the triangle [ $\pi = 3\cdot1416$ ;  $\sqrt{3} = 1\cdot732$ .]

10. Draw a plan, and calculate the area in acres, roods, and poles of a field from the following notes, the lengths being expressed in links:—

	to D	
	1000	
	800	300 to C
to E. 100	650	
	500	100 to B
to F 300	340	
From A		go North.

### ARABIC.—FIRST PAPER.

I. (a) Translate the following into English and explain the allusions:—

بعض الملوک حاصر بعض البلدان وكان معه عساكر عظيمة  
 بكثرة الرجال والعدد فكتب اليهاک الحاصر الی صاحب البلد  
 کتابا بشیر الیه بان یسلم البلد الیه وذكر ما جاء به من الرجال  
 والاصوال وفي جملة الکتاب قوله تعالی حتی اذا اتوا علی  
 وادی الذهل قالت نهلة یا ایها الذهل ادخلوا مساکنکم  
 لالعطمنکم سلیهان وجنود و هم لا یشعرون فلما وصل الکتاب  
 الی صاحب البلد تأمله وقراء علی خواصه وقال من یبها و به

علي هذا - فقال بعض الكتاب يكتب اليه قوله تعالي فتبسم  
ضاحكا من قولها - فاستحسن الحاضرون جوابه \*

(b) Rewrite the above passage with diacritical marks  
(اعراب) set over each letter.

II. Translate the following into English and explain the  
allusions :—

(a)	اسرفت في القول فقد *	فقال الطيبة قد
	واجسر ولا تبالي *	انهض الي الهعالي
	حظا فانت قان *	وخذ من الزمان
	والههيج الابه *	الهمم الحليم
	منك والامنيه *	تقرب الهنيه
	اضعات ما كان رجا *	وربها نال الغتي
	بنفسه لم يذكر *	كولا خطا عنتر

(b) قدشاب راسي وراس الحوص لم يشب  
ان الحوبص علي الدنيا لفي تعب

بوالله ربك كم بيت مورت به \* قد كان يعمر بالذات والطرب  
طار عتاب الهنا يا في جوابه \* قصار من بعدها المويل والحرب  
احبس عنا بك لا تجمع به طلبا \* فلا وربك ما الا رزاق بالطلب  
قد ياكل الهال من لم يحف راحلة \* وتترك الهال من قد جد في الطلب

III. (1) Name the author of the poetical piece (a) in  
the above question and give parts of speech of the two قد used  
in the first line of the same piece.

(2) Explain the simile used in the extract (b).

VI. Give the singular or plural of the following, as the  
case may be :—

نفش - عدد - وادي - قاضي - جنود - همم - منية - امنية  
روض - حر - اعوان - بيت \*

## ARABIC.—SECOND PAPER.

1. Translate into English :—

ماقدم ساكت الا قليلا - ان البلاء موكل بالبنطى - آفة العلم  
النسيان - اول الغضب جنون و آخره قدام - الجاهل عدو نفسه  
فكيف يكون صديق غيره - راس الحكمة مخافة الله - زرعها  
تزدن حبا - سلطان بلا عدل كثر بلا ماء - عند الامتحان يكرم  
الهمرء اوتيمان - عالم بلا عمل كسحاب بلا مطر - عز من قبح  
وقل من طبع - العادة طبيعة ثانية - ظن العاقل خير من  
يقين الجاهل - يوم المظلل علي الظالم اشد من يوم الظالم  
علي المظلوم - اياكم والطمع فاندا فقر الحاضر - لا يعرف الشجاع  
الا عند العرب ولا الحكيم الا عند الغضب ولا الصديق الا عند  
الحاجة اليه - النسيمة من المصل المميعة - سوء الخلق يدل  
علي خبث الطبع \*

2. Translate into Arabic with diacritical marks.

Never tell an untruth. Consider well before you make a promise. Sincerity and truth are the foundation of all virtue. Idleness is the root of all evil. Honour thy father with thy whole heart. God is the source of all good. He sends rain to water the barren land. I have a great desire to learn the Arabic language. I will go to that school to-morrow. Yusuf is clever, he learns very fast. Ahmad has a very good memory. Ismail was at the head of the class. How much money will you give us, father, every week ?

## PERSIAN.—FIRST PAPER.

1. Translate the following into English :—

تلمیذ ہے ارادت عاشق ہے زر است وروندہ ہے معرفت (a)  
سرف ہے پر - و عالم ہے عمل درخت ہے بر و زاہد ہے علم خانہ  
ہے در مراد از نزول قرآن تحصیل سیرت خوب است بہ ترقیل  
سورۃ مکتوب \*

مَدِينَةُ رَسُولِ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَآلِهِ وَسَلَّمَ شَهْرٌ بِرِ كَنْزَار (b)  
صَحْرًا فَهَادَةً وَزَمِينَ نَهْتَاكَ وَشَوْرَةً دَارَ وَآبِ رَوَانِ اسْتَ اَمَا  
اَنْدَكَ وَخَرْمَاسْتَانَ اسْتَ وَاَنْجَا قَبْلَهُ سَوِي جَنْوَبِ اُفْتَادَه اسْتَ  
وَمَسْجِدِ رَسُوْلِ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَآلِهِ وَسَلَّمَ چَنْدَان  
اسْتَ كَه مَسْجِدِ الْحَرَامِ حَظِيْرَةُ رَسُوْلِ اللَّهِ عَلَيْهِ السَّلَام دَر  
پَهْلَوِي مِنْبَرِ مَسْجِدِ اسْتَ \*

كَهْنِ جَامَةِ دَر صَفِ آخِرِيْنَ \* بَه غَرَشِ دَر آمِدِ چَوَشِيْرِ عَرِيْنِ (c)  
كَه بَر هَانِ قَوِي بَايْدِ وَمَعْنَوِي \* نَه رِگْهَائِ گِرْدَنِ بَه حَبْتِ قَوِي  
مِرَاْفِيْزِ چَوْرَاَنِ حَرْفِ اسْتَ بَگَوِي \* بَگَفْتَنْدِ اَر نِيَكِ دَانِي بَگَوِي  
بِه كَلَاكِ فَصَاْحَتِ بِيَانِي كَه دَاسْت \* بَه دَلْهَا چَو نَقْشِ نَگِيْنِ بَر نَگَاسْت  
گِرْتِ نَهِي مَنَكِرِ بَر آيِدِ ز دَسْت \* نَشَايْدِ چَو بِيْدَسْتِ وِپَايَاَنِ نَشَسْتِ (d)  
وَكِرْدَسْتِ قَدْرَتِ نَدَارِي بَگَوِي \* كَه پَاكِزَه گِرْدَنِ زَاَنْدَرِ زُخْوِي  
چَو دَسْتِ وَزْبَانِ رَا نَهَا دَسْتِ جَالِ \* بَهْمَتِ نَهَايْنْدِ مَرْدِي رَجَالِ  
يَكَمِ پِيْشِ دَانِي خَلُوْتِ نَشِيْنِ \* بِنَالِيْدِ وَبَگَرِيْسْتِ سَرِ بَر زَمِيْنِ

2. Explain the following in Persian as clearly as you can:—

اے چرخِ غافلِی کہ چہ بیدار کردی \* وز کین چہ دارین ستم آباد کردی  
اے زادهٔ زیاد نکرد است هیچگه \* نمرود این عمل کہ تو شداد کردی

3. Name the kinds of اِضَافَت in the following expressions:—  
کَلَاکِ فَصَاْحَتِ بِيَانِي - کَامِ يَزِيْدِ - بَرِگِ دَرخْتِ شَقَاوَتِ -

بَاغِ دِيْنِ \*

4. Give the meanings of the following expressions and make short sentences using them:—

دِمَارِ بَرِ آوَرْدَنِ - دَرِ پُوْسْتِيْنِ کَسَمِ رَفْتَنِ - بَه مَسْتَغْلِ دَاْدَنِ -  
اَخْتَرِ بَرِ گِشْتَنِ - سِيْدِ نَامَه - دَمِ دَرِ کِشِيْدَنِ \*

5. Give the derivation of the following words:—

دَشْمِيْنِ - بَغْدَادِ - دَرُوِيْشِ - فَرْزَانَه - پَارِسَا - آفِيْنَه -  
بَاَزَارِ - شَهْشِيْرِ - سِپَاسِ \*

6. Give the Arabic plurals of the singulars and *vice versa* in the following:—

غم - نوا - حور - بقعه - ندما - عندایب \*

7. Define the following, giving examples of each:—

مفعول مطلق - مفعول له - مسند الیه - تہیز \*

8. Analyse the following couplet according to Persian grammar:—

بترزانم کہ خواہی گفت آنی \* کہ دانم عیب من چون من ندانی

### PERSIAN.—SECOND PAPER.

1. Translate the following passage into English:—

امانت محمود ترین اعمال و مسعود ترین افعال است -  
خائن را کسی دوست ندارد و از امین خالق و هم مخلوق راضی  
باشد و جمله امور جزوی و کلی جهان وابستہ امانت است -  
و امانت هر عضوے از اعضائے انسانی علیحدہ است - چه  
امانت چشم آنست کہ چیزہای دیدنی را دیدن و نا دیدنی  
را هرگز نظر نا کردن - و همچنین امانت گوش آنست کہ  
اقوال ناشایستہ را نشنیدن و شنیدہ را کہ قابل ذکر نباشد  
پیش دیگران بیان نا کردن - و امانت زبان آنست سخن  
راست گفتن و بدروغ و بہتان میل نہ کردن \*

2. Translate the following sentences into English:—

- (1) بندہ این روزها مشغول کارہای زیادہ ہستم \*
- (2) دیشب بہتاب خوب بود قدرے درباغ گردش کردہ خوابیدم \*
- (3) شما می توانید کہ از عہدہ این کار بر آئید \*
- (4) این بچہ ساعت بہ ساعت پا میشود دست بہ چراغ  
میگذارد و آخر میسوزد \*
- (5) تو چرا این قدر بلند حرف میزنی \*
- (6) میخواہم توئے اطلاق شما خواب کنم \*

### 3. Translate the following into Persian :—

We live in a time of hurry and hard work ; it is very necessary, therefore, that we should have rest and change of occupation, Boys and girls at school, who spend so many hours in poring over books, should have regular holidays and sufficient time of play every day. They need not be idle, a change of occupation often being better than a complete rest. For the man who works with his hands physical recreation is not so necessary ; he finds sufficient exercise in his daily employment. It is better that he should spend his spare time in reading or study. Many working-men have attained to great honor by the diligent use of their leisure. Few have the ability to be great writers or men of science.

### SANSKRIT.—FIRST PAPER.

1. अथ तस्य तां धर्मोपदेशनां श्रुत्वा शशक आह । भो कपिञ्जल एष नदीतीरे तपस्वी धर्मवादी तिष्ठति । तदेनं पृच्छावः । कपिञ्जल आह । ननु स्वभावतोऽयमस्माकं शत्रुभूतोऽस्ति । तद्दूरे स्थितौ पृच्छावः । कदाचिदस्य व्रतवैकल्यं सम्पद्यते ।

(a) State the प्रकृति and प्रत्यय in तपस्वी and वैकल्यम्.

(b) Parse the underlined words.

(c) Decline एतत् and अस्मत् in the accusative case.

### 2. Translate into English :—

कृत्रिमं नाशमभ्येति वैरं द्राक् कृत्रिमैर्गुणैः ।

प्राणदानं विना वैरं सहजं याति न क्षयम् ॥

यथा ह्येकेन चक्रेण न रथस्य गतिर्भवेत् ।

एवं पुरुषकारेण विना दैवं न सिध्यति ॥

(a) Conjugate the roots of अभ्येति, याति and सिध्यति in the preterite लिट्.

(b) Parse the underlined words.

3. Translate into English or Hindi :—

प्राणा यथात्मनाभीष्टा भूतानापि ते तथा ।  
आत्मीयस्येन भूतेषु दयां कुर्वन्ति माधवः ॥  
नैतानतिशयेज्जातु नात्यश्रीयान्न पयेदूत ।  
नित्यं परिचरेच्चैव तद्वै सुकृतमुत्तमम् ॥

(a) State the rules of Sandhi in the underlined words.

(b) Conjugate the roots of कुर्वन्ति and अश्रीयान् in the second preterite लिट्.

4. Write out in Sanskrit prose order :—

(a) अयोध्या नाम नगरी तत्रानीलोक्तविश्रुता ।  
सनुना मानवेन्द्रेण या पुरी निर्निता स्वयम् ॥  
(b) तां तु राजा दशरथो महाराष्ट्रविवर्धनः ।  
पुरीमावासायामास दिवि देवपतिर्यथा ॥

(a) Write down the meaning of विश्रुता and दिवि.

(b) Re-write extract (b), changing the active into the passive construction.

5. Write out the purport in English or Hindi :—

आरम्भगुर्वी क्षयिणी क्रमेण  
लघ्वी पुरा वृद्धिमती च पश्चात् ।  
दिनस्य पूर्वार्द्धपरार्द्धभिन्ना  
द्यायैव मैत्री खलसज्जनानाम् ॥

### SANSKRIT.—SECOND PAPER.

1. Compose the following sentences in Sanskrit :—

(a) One sentence with the Present Tense (लट्) Third Person—Singular—form of the roots 'गम'; the Accusative (द्वितीया)—Singular form of 'प्रयाग'; and the Ablative (पञ्चमी) Singular of 'काशी'

(b) One sentence with the First Preterite (लङ्)—Third Person—Singular—form of the root 'भू'; the past participle form of the root 'दृश'; and the Nomination (प्रथम) Singular form of 'नृ'.

(c) One sentence with the Imperative (लोट्) Third Person—Singular—form of the root 'कथ'; the Accusative (द्वितीया) Singular of 'वार्ता'; and an appropriate adjective qualifying the latter.

2. Translate into English :—

(a) शृणुत रे पौराः ! अयं वसन्तसेनाघातकश्चारुदत्तो वधतस्मिन्नीयते । तद्यदीदृशङ्गर्भं केषपि कुर्वीरन्दृष्टमप्येता-  
दृशमप्राप्नुयुः ।

(b) दुःखसन्तापेन पच्यन्त इव मेघङ्गानि, कथ्यत इव हृदयम्, स्मर्यत इव दूष्टः, ज्वलतीव शरीरम् । अत्र यत्प्राप्त-  
कालान्तत्करात् भवान् ।

(c) देव रामतीर्थे स्नात्वा प्रत्यागच्छता मया काननभूमी वनितया कयाऽपि धार्यमाणमुज्ज्वलाकारङ्गुमारं विलोक्य सादरमभाणि ।

(d) यदि सत्याभिसन्धस्त्वं राजन् रामसप्रवासय ।

नव पञ्च च वर्षाणि निर्जने गह्वरे वने ॥

(e) युधिष्ठिरस्तु कौन्तेयो मयमाहूय सत्वरम् ।

कारयामास वै तेन सभासद्भुतदर्शनाम् ॥

(f) दानम्भोगो नाशस्तिष्ठो गतयो भवन्ति वित्तस्य ।

यन्न ददाति न भुङ्क्ते तस्य तृतीया गतिर्भविता ॥

(g) विद्या नाम नरस्य रूपसधिकम्प्रच्छन्नगुह्यं धनम्

विद्या भोगकरी यशःसुखकरी विद्या गुरुसाङ्गुः ।

विद्या बन्धुजनो विदेशगमने विद्या परं देवता

विद्या राजसु पूजिता न तु धनं विद्याविहीनः पशुः ॥



## 3. Translate into Sanskrit :—

(a) Dasaratha *performed* (use the root तृ) a sacrifice on the banks of the Sarayu.

(b) The King *sent* (use the root वृ with the *Upasarga* प्र) me to watch the enemy.

(c) I *could* (use the root गृक्) not ascend the top of the mountain.

(d) In the battle the horses of the warriors were killed; but they *obtained* (use the root अर्प्) others and fought again.

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### HISTORY.

1. What are said to be the advantages and disadvantages of the system of village communities that prevailed in early times in India?

2. In whose viceroyalty were Provincial Contracts begun? Describe their nature and the benefit resulting from them to the Provinces.

3. Explain the following terms :—Imperial Service Troops, Additional Police, Budget Estimate, Home Charges.

4. What do you know about the reign and kingdom of Asoka?

5. Name in order, giving the period of rule of each, the different dynasties of Pathan Kings that reigned at Delhi down to the time of the first battle of Paniput. Under what circumstances was this battle fought, and what were the consequences which followed from it?

6. Write an account of the First Mahratta War under the following heads :—(i) duration, (ii) cause, (iii) principal events (iv) name and terms of concluding treaty.

7. State what you know of the following, giving the date of each :—the Confirmation of the Charters, the Statute of Labourers, the Act of Supremacy, the National Covenant, the Self-denying Ordinance.

8. Mention what happened at the following places to make them famous in English history.

Senlac, Khartoum, Amiens, Ruunincede, Balaclava, Fotheringay.

9. Relate the important doings of any *three* of the following men :—Simon de Montfort, Protector Somerset, Sir John Elliot, Judge Jeffreys, the first Duke of Marlborough.

## GEOGRAPHY.

1. What is meant by a river-basin? Make a rough sketch of any large river basin known to you.

You have often observed the roads on a rainy day. Explain what important lessons regarding rivers and the work they do can be learnt from such observation.

2. To what branch of the Caucasian Race does the population of Europe belong? This branch admits of four prominent divisions; state what they are. Into what three main Zoologie Provinces may Asia be divided? Name some of the more important classes of Asiatic Mammals.

3. State approximately on what meridians of longitude the following towns are situated: Madras, Calcutta, Adelaide, Paris and London? What is meant by saying that the positions of places on our geographical maps are given in terms of angular distance? Prove that if the local time and the Greenwich time are known longitude of a place can be found.

4. What portions of land are separated, and what seas connected, by the following straits:—Gibraltar, Bebal-Mandeb, Malacca, Magellan and Behring?

5. Draw a rough map of India showing the more important of its railway systems. What reasons can you assign for the choice of route in each case?

6. What is meant by the material resources and the manufacturing industries of a country? How do they affect its welfare? What are commercial commodities? From what countries are the following obtained: copper, wheat, timber and wool? If you wished to bring a cargo from California to Bombay what route would you take?

7. Compare the great mountain ranges of Europe with those of Asia as regards:

(1) their general direction;

(2) height.

Why is the climate of Europe milder than that of Asia?

8. Name the principal manufacturing countries of Europe. Which of these are coal and iron producing countries? Explain how it is that the great iron foundries of the world are found near coalfields.

9. What do you know of the following: Newcastle, Alleghenies, Hobart, Mexico, Kilimanjaro, Baikal, Martinique, Tucatan, Berars, Dartmoor, Amazon, Bucharest?

## GEOMETRICAL DRAWING.

*Time allowed—2 hours.*

NOTE.—Scale and figures to be neatly inked in, all construction lines to be left in pencil.

1.—Draw a scale of miles and furlongs, in which  $1\frac{1}{2}$  furlongs equal  $\frac{1}{8}$  of an inch.

2.—About a circle of  $2\frac{1}{2}$  inches diameter, construct a regular heptagon.

3.—Construct a triangle with a perimeter of 4 inches, the sides to be in the proportion of 2, 3 and 4.

4.—Draw an interior tangent to two circles of  $\frac{1}{2}$  inch and 1 inch radii, the distance apart of their centres being  $2\frac{1}{2}$  inches.

5.—In a square of 2-inch side, inscribe an isosceles triangle the length of the base being  $1\frac{1}{2}$  inches.

6.—Within a circle of 2-inch radius inscribe a triangle the angles of which are  $37^\circ$ ,  $73^\circ$ , and  $70^\circ$ .

## ELEMENTARY PHYSICS &amp; CHEMISTRY.

1. Distinguish as clearly as you can between solids, liquids, and gases. Mention some solids that can easily be made into liquids, and some liquids that can be made into gases. How would you make the change?

2. Mention the common properties (*i.e.*, whether hard, combustible, soluble, crystalline, opaque, porous, or the reverse) of the following substances:—

Glass, lead, india-rubber, charcoal, chalk, salt, iron, leather, and ice.

3. What are crystals? Do all crystals require water for crystallisation? If not, mention some which do not. How would you make crystals of salt, sulphur, and sugar?

4. Draw along a page of your answer book a line as nearly as possible *six inches long*. Divide the line into inches, and divide one of the inches into ten equal parts.

Also draw a square whose area is *four square inches*.

5. What is the difference between the mass and the weight of a body. What is the cause of weight? Which is the heaviest a

pound of lead or a pound of cotton wool? Give reasons for your answer.

6. Describe a barometer and indicate its use.

7. State clearly the principle of Archimedes. Explain carefully how you would determine the density of an irregular lump of stone.

8. What is meant by temperature? Why is not your hand a good indicator of the temperature of any substance? What is the thermometer and why is it a good indicator?

9. Sugar dissolves in water; marble dissolves in Hydrochloric (Muriatic) acid. Explain what you see happening in each case and how these actions differ from one another.

### BOOK-KEEPING.

1. Explain the terms Debtor and Creditor as applied to Book-keeping. Give examples to illustrate your answer.

2. What is journalising? Journalise the following transaction.  
(a) Smith returns to me a loan of Rs. 100 plus Rs. 5 Interest. (b) I pay Rs. 337 to Mr. King on account of Mr. Price by my cheque on the National Bank.

3. What is the object of a Trial Balance?

4. What are Nominal Accounts? Mention the chief, and state their purposes.

5. Explain Capital, Assets, Liabilities, Balance, Endorsement.

6. What are opening and closing entries? How are they obtained?

7. Journalise these transactions of W. Spencer; then post them. Balance and close the Ledger.

*Assets.* Cash Rs. 200, Bank Rs. 800, Brandy Rs. 150, Sherry Rs. 200, Port Rs. 120, Thomas Rs. 200.

*Liabilities* Due to Dixon Rs. 100.

Apl. 1. Sold to Gilbert sherry for cheque Rs. 80.

4. Received cheque from Thomas Rs. 100 and endorsed it to Dixon.

7. Sold brandy to Dixon Rs. 80.

10. Received from Dixon cheque Rs. 80.

12. Bought of Jones brandy Rs. 200. Paid duty on it Rs. 30.

14. Advanced for petty cash Rs. 15.

19. Sold to Jones, brandy Rs. 80.
22. Paid into Bank Rs. 100.
23. Sold Port for cash Rs. 75.
24. Bought stationery by cheque Rs. 20.
30. Rent due Rs. 200. Rent paid Rs. 100.  
     Petty cash payments Rs. 10.  
     Port on hand Rs. 100.  
     Sherry on hand Rs. 160.  
     Brandy on hand Rs. 300.

8. Name the subsidiary books used in book-keeping when a waste book is not kept. Explain clearly the purpose of each.

### POLITICAL ECONOMY.

1. What are the advantages of Organisation in Labour? Discuss the most important of them.
2. What are the factors of Production? Show the manner in which each factor enters into the production of a cloth-coat.
3. Show that in modern industrialism the employer generally undertakes the risks of production. Is there any compensation for these risks?
4. Enunciate and explain Ricardo's Law of Rent.
5. How do you account for the greatly varying amounts of remuneration obtained by a miner, a great musician, a doctor, and a brick-layer?
6. Account for the success which has attended the application of Co-operation to shop-keeping in large industrial centres. Why has it not prospered in connection with productive enterprises?
7. What qualities should a substance possess which is employed as a general medium of exchange?

### ENTRANCE AND SCHOOL-FINAL EXAMINATIONS, 1906.

#### ENGLISH.—FIRST PAPER.

##### Section A.

1. Refer the following passages to their context and explain the portions underlined:—

(a) Two thousand three hundred years have sped since he braced himself to perish for his country's sake in that narrow, marshy coast road, under the brow of the wooded crags, with the sea by his side. Since that time how many hearts have glowed, how many arms have been nerved at

the remembrance of the Pass of Thermopylæ, and the defeat that was worth so much more than a victory!

(b) There was no bar to the door. Yes there was. Catherine Douglas, worthy of her name, worthy of the cognisance of the bleeding heart, thrust her arm through the empty staples to gain for her sovereign a few moments more for escape and safety! But though true as steel, the brave arm was not as strong.

(c) "Good friend!" said Hal, and sighed the while,  
"Farewell! and happy be;  
But say no more if thou'dst be true,  
That no one envies thee.

Thy mealy cap is worth my crown,—  
Thy mill, my kingdom's fee!  
Such men as thou are England's boast,  
O miller of the Dee!"

(d) "Let my obedience then excuse  
My disobedience now,  
Nor some reproof yourself refuse  
From your aggrieved Bow-wow:  
"If killing birds be such a crime  
(Which I can hardly see),  
What think you, Sir, of killing time,  
With verse addressed to me?"

2. Write a short account of one of the following:—  
George the Triller; Agostina of Zaragoza.

(The account not to take up more than two pages of the answer-book.)

### Section B.

1. Bring out clearly the meaning of each of the following:—

(a) A Golden Deed must be something more than mere display of fearlessness.

(b) "It is with iron, not gold, that Romans guard their country."

(c) "Hail, Cæsar, those about to die salute thee!"

(d) "To thee the reed is as the oak."

(e) Everything that heard him play,  
Ev'n the billows of the sea,  
Hung their heads and then lay by.

2. Relate the "Golden Deed" in connection with the Birkenhead.

(Your answer should not occupy more than one page.)

3. Write brief notes on the following:—Archbishop Feelepp; the Ghibellines; Abou Ben Adhem; Casablanca; the Monthyon "Prize of Virtue."

### Section C.

1. Young Franklin was now to distinguish himself in a *new character*. The perusal of the works of others suggested to him the idea of trying his own talent at composition; and his first attempts *in this way* were a few pieces of poetry. Verse, it may be observed, is generally the earliest sort of composition attempted either by nations or individuals, and for the same reason in both cases—namely because *poetry has peculiar charms for the unripe understanding*. Franklin's *poetical fit*, however, did not last long. Having been induced by his brother to write two *ballads*, he was sent to sell them through the streets; and one of them, at least, being on a subject that had just *made a good deal of noise in the place*, sold, as he tells us, *prodigiously*. But his Father who, without much literary knowledge, was a man of a remarkably sound and vigorous understanding, soon brought down the *rising vanity* of the young poet, by pointing out to him the many faults of his *performances*, and convincing him what *wretched stuff* they really were. Having been told, too, that verse makers were generally beggars, with his *characteristic prudence* he determined to write no more ballads.

In the above passage explain the words and phrases italicized.

2. Higher, higher will we climb,  
 Up the mount of glory,  
 That our names may live through time,  
 In our country's story;  
 Happy, when her welfare calls,  
 He who conquers, he who falls.  
 Deeper, deeper let us toil  
 In the mines of knowledge;  
 Nature's wealth and Learning's spoil  
 Win from School and College;  
 Delve we there for richer gems  
 Than the stars of diadems.  
 Onward, onward may we press  
 Through the path of duty;  
 Virtue is true happiness,  
 Excellence true beauty;  
 Minds are of celestial birth,  
 Make we then a heaven of earth.  
 Explain the above passage, stanza by stanza.

ENGLISH.—SECOND PAPER.  
 Section D.

1. Define Nominative Absolute, Cognate Object, Case in Apposition, and Gerund, giving examples of each.
2. Parse the word (a) *But* and (b) *That*, in the following:—
  - (a) (1) There is no rose *but* has a thorn.
  - (2) None *but* the brave deserve the fair.
  - (3) Man wants *but* little here below.
  - (4) We admit that Hawkins was a famous navigator. *But*—there is always a *but*—he was a robber.
  - (b) (1) I must now go, not *that* I want to go, but I have an engagement.
  - (2) Mark but my fall, and *that that* ruined me.
  - (3) Rome shall perish—write *that* word  
 In the blood that she has spilt.



(4) He said *that* he could not come to dinner.

3. Point out and explain the difference in each pair of the following sentences :—

(1) Shall I shut the door ?

May I shut the door ?

(2) He was seized by the police as he had attempted to run away.

He was seized by the police as he attempted to run away.

### Section E.

4. Expand the following words and phrases in italics into clauses, and state the kind of each clause thus formed :—

(1) A bird *in hand* is worth two in the bush.

(2) *Beaten at one point* we made for another.

(3) *To reign* is worth ambition, though in hell.

(4) *To tell the truth*, I dislike him.

5. (a) Form Nouns from—

*Break, sell, move, draw, dry.*

(b) Form Adjectives from—

*Grade, angle, land, vice, crime, line.*

(c) Form Verbs from—

*Clear, clean, right, glass, fruit, hand.*

In each case construct a sentence shewing the use of the derived word.

6. Analyse in tabular form :—

When a horseman who had been sent to reconnoitre reported that the Greeks were amusing themselves outside the walls, Xerxes asked what this madness might mean.

### Section F.

7. (a) Construct short sentences to show the correct use of—

*Rather than ; no sooner ; all but ; more or less ; provided that ; would that.*

(b) Insert appropriate prepositions in the blanks in—  
 (1) Religion and Membership may differ widely—  
 each other.

(2) You may rely—what I say.

(3) We may confide—his honesty.

8. Parse the words in italics in the following:—

(1) *The* more it rains, the cooler *it* is.

(2) I had but one-house, *as* you know; since then I have bought another.

(3) They stood *gazing* where he sank.

(4) It *were* best let alone.

9. "How, boy!" said the Queen, "neither gold nor garment? what is it thou wouldst have of me then?"

"Only permission, Madam, to wear the cloak which did you this trifling service.

"Permission to wear thine own cloak thou silly boy?" asked the Queen.

"It is no longer mine," said Walter, "when your Majesty's foot touched it, it became a fit mantle for a prince."

Report the above conversation in the indirect form—

(1) As the Queen would report it to one of the ladies of the Court;

(2) As the boy would report it to a friend;

(3) As a bystander would report it to the same friend.

### URDU.—THIRD PAPER.

#### Section G.

Translate into English:—

(a) ایسی ہنسی اور مسخراپن کسی سے کرنی نہ چاہئے کہ جسکا نتیجہ برا ہو۔ کبھی کبھی ایسی حرکتوں سے بڑا نقصان پہونچجاتا ہے بدن پر سخت چوت لگتی ہے اور کبھی جان تک نوبت آتی ہے۔ ولایت کے کسی بورتنگ ہوس میں ایک دلاور طالب علم رہتا تھا۔ وہ بھوت پریت کی باتوں پر کچھ یقین نہیں کرتا تھا۔ اوسکے ساتھیوں نے یہ صلاح کی کہ

اسکو ایک دن بھوت سے قرا نا چاہئے۔ انہوں نے اوس سے کہا کہ دیکھو اس برو تنگ دوس میں بھوتوں کا بڑا گڑبڑ مچا ہے۔ ہم نے ایک بھوت کو اپنی آنکھوں سے دیکھا ہے۔ اوس طالب علم نے ہنس کر کہا کہ کیا پاگل ہو گئے ہو؟ بھلا بھوت بھی کوئی چیز ہے؟ میں اپنی آنکھوں سے جب تک نہیں دیکھتا تب تک اس پر یقین نہیں کرتا۔ ان لوگوں نے کہا کہ یہاں آجکل اکثر دکیا گئی پڑتا ہے۔ اسکا کوئی علاج کرنا چاہئے۔ وہ بولا علاج اور کیا میں آجسے اپنی پستول میں گولی بھر کر رکھوں گا۔ کوئی شریر آدمی اگر ایسا کریگا تو مارا جائیگا۔ ورنہ جان لوں گا کہ بھوت سچ ہے۔ کچھ دنوں کے بعد رات کے وقت جب سب لوگ سو گئے تب صلاح کاروں میں سے ایک شخص چپ چاپ اوس دلاور طالب علم کے کمرے کے اندر گھس گیا اور کالے کپڑوں سے اوسر تاپا اپنی تئیں لپیٹ کر اوسکے یلنک کے پاس پہنچ کر ایک گوشہ سے کچھ آواز کی۔ اس حرکت کرنے کے قبل ہی سے اوسنے اوسکے پستول کی گولی نکال لی تھی۔

### Section H.

وہ طالب علم اس آواز سے جاگ اٹھا اور دیکھا کہ ایک کالے روپ کا کوئی شخص کھڑا ہے۔ وہ چرنک اٹھا اور پستول کو اپنی تکیہ کے نیچے سے نکال کر بولا کہ دیکھو جی اگر تم برو تنگ دوس کے کوئی ہو تو میڑی یہاں سے کہ ہنسی اور مسخراہن چیتور دو نہیں تو تمہاری لالچ اب زمین پر گرئی ہے۔ وہ شخص اس پر ہنسی بڑھاتا ہی گیا۔ پستول کی آواز ہوئی لیکن اس نے نہیں گری اور اوس کالی شکل نے پستول کی گولی کو چپ چاپ اوس پر پہنک دیا۔ جب پستول کا چلانا خالی گیا تب وہ طالب علم مارے قرا کے بیہوش ہو گیا۔ بھوت کی شکل بننے والا آدمی تب زور

سے ہنس کر چل دیا اور کالے کپڑے اوتار کر جب لوٹا تو کیا دیکھتا ہے کہ اوس طالب علم کی لاش اوسکے بسترے پر پڑی ہوئی ہے \*

(b) غصہ اور عقل میں دشمنی ہے - غصہ ایک قسم کی بری آندھی ہے - جب غصہ کی آندھی آتی ہے تب کسی کی بات سنائی نہیں پڑتی - اوسوقت جو چاہے کرٹی کہے سب بیکار ہوتا ہے - غصہ زہر ہے - کیونکہ اوسکے نشے میں بھلے برے کا خیال نہیں رہتا - غصور آدمی ہر کسی پر اور ہر ایک بات پر بلا وجہہ بگڑ کھڑا ہوتا ہے - غصہ انسان کے چہرے کو سرخ اور اوسکی آواز کو روکھا کر دیتا ہے \*

### HINDI.—THIRD PAPER.

#### Section G.

#### 1. Translate into English:—

(a) ऐसी हंसी और मसखरापन किसी से करनी न चाहिये जिस का नतीजा बुरा हो । कभी कभी ऐसी हंसी और मसखरापन से बड़ा दुःखान पहुँच जाता है । कभी शरीर पर सख़ खोट लगती है । और कभी जान तक की नौबत आती है । बिलायत के किसी बोर्डिंग हाँस (छात्रावास) में एक साहसी विद्यार्थी रहता था । वह भूतप्रेत की बातों पर कुछ भी विश्वास नहीं करता था । उसके साथियों ने यह सलाह दी कि इस को एक दिन भूत से डराना चाहिये । उन्होंने जाकर उससे कहा कि देखो इस छात्रावास में भूतों का बड़ा उपद्रव मचा है । हमने एक भूत को अपनी आँखों से देखा है । उस विद्यार्थी ने हंस कर कहा क्या पागल हो गये हो, भूत भी कोई चीज़ है । मैं अपनी आँखों से जब

तक नहीं देखता तब तक इस पर विश्वास नहीं करता । उन लोगों ने कहा कि यहाँ आजकल अक्सर दिखाई पड़ता है । इसका कोई उपाय करना चाहिये । वह बोला उपाय और क्या । मैं अपनी पिस्तौल में गोली भर रखूँगा । कोई दुष्ट मनुष्य ऐसा करेगा तो अवश्य मारा जायगा । नहीं तो जानूँगा की भूत सच है । कुछ दिनों के बाद रात के बक्त जब सब लोग सो गये तब सलाहकारों में से एक गरुस चुपचाप उस साहसी विद्यार्थी के कमरे में घुस गया और काले कपड़ों से सिर से पैर तक देह को ढांक कर उसके पलङ्क के पास पहुँच कर एक किनारे से कुछ शब्द किया । उसके पहले ही उसने पिस्तौल की गोली निकाल ली थी ॥

#### Section H.

वह विद्यार्थी इस शब्द से जाग उठा और देखा कि एक काला रूप का आदमी खड़ा है । वह धीक उठा और पिस्तौल को अपनी तकिये के नीचे से निकाल कर बोला देखो जी अगर तुम छात्रावास के कोई हो तो मेरी यह बिनती है कि हंसी और मसखरापन छोड़ दो नहीं तो तुम्हारी लाश अब ज़मीन पर गिरती है । वह गरुस उस पर भी आगे बढ़ता ही गया । पिस्तौल की आवाज़ हुई पर लाश नहीं गिरी और उस काली शकल ने पिस्तौल की गोली चुपचाप उस पर फेंक दिया । जब पिस्तौल का चलाना खाली गया तब तो विद्यार्थी मारे डर के बेहोश हो गया । भूत का रूपधारी मनुष्य जोर से हंस कर चल दिया । काले कपड़े उतार कर जब लौटा तो क्या देखता है कि उस विद्यार्थी की लाश उसके बिस्तरे पर पड़ी हुई है ॥

(b) क्रोध और विवेक में शत्रुता है । क्रोध एक प्रकार की बड़ी आंधी है । जब क्रोध की आंधी आती है तब किसी की बात नहीं सुनाई पड़ती । उस समय चाहे कुछ भी कोई कहे सब व्यर्थ जाता है । क्रोध विष है क्योंकि उसके नशे में भले बुरे का ज्ञान नहीं रहता । क्रोधी हर एक बात पर और हर किसी पर बिना कारण बिगड़ खड़ा होता है । क्रोध मनुष्य के चेहरे को सुख और उसकी आवाज़ को रूखा कर देता है ॥

#### MATHEMATICS.—FIRST PAPER.

1. A merchant has three kinds of wine ; of the first kind 403 gallons, of the second 434 gallons, and of the third 465 gallons. What is the least number of full casks of equal size in which this can be stored without mixing ?

2. Find the sum of money that is the same fraction of 5 crowns that Re. 1-8 as. is of Rs. 2-5 as. 4 p.

3. A sum of money amounts in 10 years at  $4\frac{1}{2}$  per cent simple interest to Rs. 2,972-8 as. In how many years will it amount to Rs. 4,356-4 as. ?

4. Extract the square root of 15848361.

5. Divide  $2x^3y - 7xy^3 + x^4 - 4y^4$  by  $x^3 - xy - y^2$ .

6. If the product of three successive odd or even integers be increased by four times the middle number, prove that the sum will be a perfect cube.

7. Resolve  $x^4 - 64$ , and  $x^3(y-z) + y^3(z-x) + z^3(x-y)$  into factors.

8. Simplify :—

$$\frac{1}{(1-a)(1-b)} + \frac{a^2}{(1-a)(b-a)} - \frac{b^2}{(b-1)(a-b)}$$

9. Solve :  $\frac{x-2a}{b+c-a} + \frac{x-2b}{c+a-b} + \frac{x}{a+b+c} = 3$ .

$$(x-1)^2 + (x+4)^2 + (x-8)^2 = 26$$

10. If 11 be taken from a certain integer we get the square of a whole number; and if 24 be added to the same integer, we get the square of the next greater number. Find the integer.

11. If  $a:b=c:d$  prove that  $ab+cd$  is a mean proportional between  $a^2+c^2$  and  $b^2+d^2$ .

### MATHEMATICS.—SECOND PAPER.

1. The sum of the distances of any point within a triangle from its angular points is less than the perimeter of the triangle.

2. (a) Describe a parallelogram that shall be equal to a given triangle, and have one of its angles equal to a given angle.

(b) Describe a rhombus equal to a given parallelogram and standing on the same base. When does this construction fail?

3. Divide a given straight line into parts, so that the rectangle contained by the whole and one part may be equal to the square on the other part.

4. (a) The diameter is the greatest chord in a circle.

(b) Through a given point within a circle draw the least possible chord.

5. (a) Inscribe a circle in a given square.

(b) Prove that a rhombus and a square are the only parallelograms in which a circle can be inscribed.

6. Given the vertical angle, perimeter, and altitude: construct the triangle.

7. If a man walk from a corner to corner of a square enclosure in 11 minutes, find to the nearest second how long he would take to walk round it.

8. Find in square yards the area of a path 5 feet wide surrounding a lawn whose length is 25 yards and breadth 21 yards.

9. In a circle of radius 54 inches, the height of an arc is 3 inches, find the chord of half the arc.

10. Two equal circles each of radius 18 inches touch each other externally, and a common tangent (direct) is drawn to

them. Find the area of the space included between the circles and the tangent.

11. Draw the plan, and calculate the area in acres, roods and poles, of a field from the following notes.

Links.	
to E 400 from	to B
	1,000
	1,000
	620
	360
	A
	160 to D.
	320 to C.
	90 N. E.

### ARABIC.—FIRST PAPER.

1. Translate each of the following into English:—

(a) هذا ما كان من امرها - واما ما كان من سيدها فعمه فانه اتى الي داره وجلس علي فراشه و نادى يا نعم فلم تجبه - فقام مسرعا و نادى فلم يدخل عليه احد و كل جارية في البيت اختفت خوفا من سيدها - فخرج نعمة الي والدته فوجدتها جالسة و يدها علي خدها - فقال لها يا امي اين نعم - فقالت له يا ولدي مع من هي اوثق مني عليها وهي العجوز الصالحة - فانها خرجت معها لتزور الفقراء و تعود - فقال و مني كان لها عادة بذلك - و في اي وقت خرجت - قالت خرجت بكثرة النهار - قال و كيف اذنت لها بذلك - فقالت له يا ولدي هي التي اشارت علي بذلك \*

(b) و يعجبني من الا فكلين خلال - منها انه ليس عندهم فضول و تكليف علي التخييل فيهم - بل و لا علي من هو منهم - فلا يزورونه في غير وقت الزيارة و لا يستغيثون منه و لا يتعزضون لها يا نبيه - فلوراوه مثلاً مضطجعا علي قارعة الطريق كم يسألوا لاي سبب تفعل ذلك - بل ربما حسبتوا ان اهل بلاده جميعا يضطجعون مثله و ان في ذلك مصلحة لهم -



واذا زارك احدهم ورأي عندك مثلاً امرأة او نساء لم يهجه  
ان يسألك عن سبب زيارتهن بها لا بد منه في بلادنا \*

(٥) قال الحجاج فاقرع شيئاً - فاستفتح - اعوذ بالله  
من الشيطان الرجيم - بسم الله الرحمن الرحيم - اذا جاء نصر الله  
والفتح ورأيت الناس يخرجون من دين الله افوجاً - فقال  
الحجاج ويحك - انه "يدخلون" فقال الغلام قد كانوا  
يدخلون - واما اليوم فقد صاروا يخرجون - قال ولم ذاك ؟  
قال لسوء فعلك بهم - قال ويلك - وهل تعرف من تخاطب ؟  
قال نعم - شيطان ثقيف الحجاج - قال ويلك - ومن رباك ؟  
قال الذي زرعك - قال فمن امك ؟ قال التي ولدتني - قال  
فاين ولدت ؟ قال في بعض الفلوات - قال فاين نشأت ؟ قال  
في بعض البراري \*

2. Write out any one of the above extracts with diacritical marks very carefully, i.e., (اعراب) \*

3. Explain the underlined phrases, as far as you can, in question 1.

4. Translate the following into English :—

اتاني ان هند احمل صخر  
دعت در كاو بشرت الهندوا  
فان تغنر بعهزة حيين وائي  
مع الشهداء محتسبا شهيدا  
فانا قد قتلنا يوم بدو  
ابا جهل و عتبة والوكيدا  
و قتلنا سواة الناس طرا  
و غنمنا الولائد والعبيدا  
وشيبة قد قتلنا يوم ذاكم  
علي اثوابه علقا جسيما

فَبِئْسَ مَا لَكُمْ مِنْ جَهَنَّمَ شُرَكَاءَ  
 عَلَيْهَا لَكُمْ يَبْعَدُ عَنْهَا مَحِيدًا  
 وَمَا سَيِّئَانِ مِنْ هُوَ فِي جَهَنَّمَ  
 يَتَكُونُ شَرَابُهُ فِيهَا صَدِيدًا  
 وَمَنْ هُوَ فِي الْجَنَّةِ يَدْرُ فِيهَا  
 عَلَيْهِ الرِّزْقُ مَغْتَبَطًا حَبِيدًا

5. Write out the allusions referred to in question 4.

6. (a) Analyse the following:—

تَذَامُ عَيْنُكَ وَالْهَظْلُومُ مُنْتَبِهٌ

يَدْعُو عَايِكَ وَعَيْنُكَ لَمْ تَقُمْ

(b) Write out singulars of the plurals and *vice versa* of the following:—

سَيِّدٌ - جَارِيَةٌ - يَدٌ - عَجُوزٌ - امْرَأَةٌ - نِسَاءٌ - غِلَامٌ -  
 بُرَارِيٌّ - فُلُوتٌ - امْسَاهُتٌ - فَقَرَاءٌ - اسْبَابٌ \*

### ARABIC.—SECOND PAPER.

1. Translate the following into English:—

A.

خَرَجَ شَخْصٌ بِصُرَّةِ دِرَاهِمٍ إِلَى السُّوقِ لِيَشْتَرِيَ حَبَارًا -  
 فَاسْتَقْبَلَهُ رَجُلٌ فِي الطَّرِيقِ وَقَالَ لَهُ أَلَيْسَ أَيْنَ - قَالَ أَلَيْسَ السُّوقُ  
 لَأَشْتَرِيَ حَبَارًا - قَالَ قُلْ أَنْ شَاءَ اللَّهُ تَعَالَى - فَقَالَ لَيْسَ هَذَا مَوْضِعُ  
 أَنْ شَاءَ اللَّهُ - الدِّرَاهِمُ فِي جَيْبِي - وَالْحَبَارُ فِي السُّوقِ - فَلَمَّا  
 وَصَلَ إِلَى السُّوقِ ضَرَبَ عَلَيَّ جَيْبِي لَصِ (Thief) فَاخْذُ الصُّرَّةَ  
 (money bag) - فَلَمَّا رَجَعَ أَلَيْسَ دَارَةٌ اسْتَقْبَلَهُ ذَلِكَ الرَّجُلُ -  
 فَقَالَ لَهُ مِنْ أَيْنَ - قَالَ مِنْ السُّوقِ أَنْ شَاءَ اللَّهُ - وَسَرَقْتَ  
 دِرَاهِمِي أَنْ شَاءَ اللَّهُ - وَلَمْ أَشْتَرِ الْحَبَارَ أَنْ شَاءَ اللَّهُ - وَهِيَ  
 إِذَا مَغْلَسَ أَنْ شَاءَ اللَّهُ - وَعَلَيْكَ الْكَعْبَةُ أَنْ شَاءَ اللَّهُ \*

## B

روي ان ملكا من الملوك بنى قصرا - وقال انظروا من عاب منه شيئا فاصطروه و اعلوه - در همين - فاقامه رجل فقال - ان في هذا القصر عيبين - قال و ما هما - قال يموت المالك و يخرب القصر - قال صدقت - ثم اقبل علي نفسه و ترك الدينار \*

## C

يقال ان عمر بن عبدالعزيز كان ينظر ليلا في قصص الرعية في ضوء السراج - فجاء غلام له فحدثه في معني سبب كان يتعلق ببنيته - فقال له عمر - اطفأ السراج ثم خذ ثني لان هذا الدفن من بيت مال المسلمين - ولا يجوز استعجا له الا في اشغال المسلمين \*

## D

سوق رجل صرّة من الدراهم و مضى حتي اتى الي المسجد فدخل يصلي - فقرأ الا مام - و ما تلك بيبيذك يا موسي - و كان اسم الا عرابي موسي - فقال لاشك انك ساحر - ثم رمي الصرّة و خرج هاربا (fled away) \*

2. Translate the following into Arabic, giving vowel marks very carefully, to the Arabic words you write :-

- (1) I saw three men, four women, and six boys working in a field.
- (2) My examination time is very near.
- (3) We worship God five times in twenty-four hours.
- (4) We are good friends.
- (5) I love him for his virtue.
- (6) She walks out every morning.
- (7) Have they ever visited Mecca?
- (8) I am here.
- (9) What a fine horseman you are?
- (10) How many men are there in the house?
- (11) He said so and so.

- (12) Paradise is at the feet of mothers.  
 (13) I brought fourteen oranges نازنج for three *dirhams*.  
 (14) I must finish my work before sunset.  
 (15) Bakar is the most learned of all his fellow citizens.  
 (16) Zaid's eldest brother was killed in a battle in the year one thousand three hundred and fifty-four A. H.  
 (17) I do not worship what you worship.  
 (18) Do you not know that God sees us?  
 (19) Our God is just.  
 (20) He created the world in which we live.  
 (21) He gave us eyes to see, hands to work, and feet to walk.  
 (22) In India winter is more agreeable than summer and so in most parts of Arabia.

### PERSIAN.—FIRST PAPER.

1. Translate the following into English :—

(a) سالے نزاعے میان پیادگان حجاج افتاده بود وداعی در آن سفر هم پیاده بود انصاف در سر و روه هم افتادیم و داد فسوق وجدال دادیم - کجاوه نشینے را دیدیم کہ با عدیل خویش میگفت یا للمعجب پیاده عاج عرصه شطرنج را بسومی بود فرزین میشود یعنی به ازان میشود کہ بود و پیادگان حاج بادیه را بسر بردند و بتر شدند \*

(b) میفرماید - خرد بهین بزرگ زبان است - مردمان بے مایه را زنده نہ شهید - اگر خواهی کہ بیرنج قونگر باشی پسند کار باش - هم او فرماید - مرگ بہتر از نیاز ہمہسوان خویش - و بگرسنگی مردن بہ کہ بنان فرومایگان سیر شدن - هر اندیشے کہ بتورسد بر سست پیماندان استوار مباحش و بر استواران سستی منها \*

(c) چون حقیقت پندہای پدرم هنوز بواقعی ظاہر نگشتے و از بعضے تقصیرات و غلط بینی ها و ارادے ناشایسته کہ مرضی درگاه خالق و پسند خاطر خلّاق نبود سرزده خود

بخود شرمندہ و شرمسار بودند - وبا آنکہ در روز جلوس  
تقصیرات ہمہ را عفو نہودہ با خود قرار دادہ بودم کہ باز  
خواست امور گزشتہ نشود بنا بو تو ہمہ در خاطر از ایشان  
قرار گرفته بود امیرالامرا را حافظ و نگہبان خود میدادستم \*

2. Write briefly in Persian what you know of the author of the extract (c) in question 1.

3. Translate the following into English and explain the allusions referred to :—

(a) دو پیکر خط بندگی دادہ بود  
بخد مت کمر بستہ استادہ بود

بیدولت جیہاندار با ہوش و راے  
خدا بندہ بود و خرد آزمایے

نبودے سرش پایے بند غرور  
سلیہان گران سر نباشد بہرور

(b) این کہنہ رباط را کہ عالم نام است

آرام گہ ابلق صبح و شام است

بزمیست کہ واماندہ صد جہشید است

قصریست کہ تکیہ گاہ صد بہرام است

(c) چیزیکہ رفت رفت مکن یاد او دگر  
زیرا کہ تازہ کردن غم کار عقل نیست

تا تقد روزگار ترا کم زیان شود  
بگذر ازان کہ سود در ادبار عقل نیست

نہ نہ عقل عقل بیغکن زپایے دل  
کاغبار غم کم است کہ ادبار عقل نیست

4. Give the force of **ت** in the 2nd line of question 3 part (c), and state with examples in what other senses it can be used.

5. Explain the following in English :—

عصای کلیم اند بسیار خوار  
پس انگه نهانند خود را نزار  
نه پرهیزگارو نه دانشور اند  
همین بس که دنیا بدین میخورد  
عیای بالا نه در تن کنند  
به دخل حبش جامه زن کنند  
زسنت نه بینی در ایشان اثر  
مگر خواب پیشین و نان سحر

6. Explain in Persian as clearly as you can :—

یار مردان خدا باش که در کشتی نوح  
هست خاکی که به آب بخورد طوفان را  
ماه کنعانی من مستند مصر آن توشه  
وقت آنست که پدر و دکنی زندار را

7. Analyse according to Persian Grammar :—

گرانی که دشمنت گوید مرنج  
و گر نیستی گو برو باد سنج

8. Name the two kinds of هلی هرز and explain with examples how they differ in forming the plurals of nouns to which they are affixed.

### PERSIAN.—SECOND PAPER.

1. Translation the following passages into English :—

(الف) امشب بد خوابیدم - بر خواستم - چراغ را روشن  
کردم - مشغول کتابت شدم - بعد از ساعتی دو باره خوابیدم  
- صبح کسالت مانع شد بیرون روم - و قعاً شب بوی  
آسائیش است - جمیع حیوان و نبات از زحمات روز آسوده  
شوند - قوای ابدان استقرار یابند و مترصد زحمات روز

دیگر میشود - قیصر روم در روز نامه ایام سلطنت خود می نویسد که روزی بحدات معتاد صبح از خواب بیدار شدم - گرمی اجاث و گرمی بالاش مانع از برخواستن من شد - خود بشود گفتم که بر خیز مگر تو برای استراحت در بستر خلق شده که بیشتر از آنکه حفظ صحت را در خور است می خوابی .

(با) هزار از قافله متعاقب هم به هدایت یکنفر بدرقه روی بر مقصد می رفتند - جماعتی از اهالی قافله را سودای تقدم بر سرافتاد - جمعی از اهل قافله را غافل یافته میگویند اگر غرض از طیّ این طریق و صرل بمقصد است از طریقۀ که اقرب طرق باشد مسبوقم - اگر تابع من باشد قبل از همه شمارا بمنزل میرسانم - اهل قافله که از طیّ مسافت خسته هستند از هم متفرق شد دنبال آنهارا میگیرند و بقافله سالاری آنها قدم در ببراده می گزارند و در عقب بدرقه اولی نمیمانند مگر جعته قلیله که بسر منزل نجات میرسند و دیگر قوافل متفرق ز هم در صحراے قفر قدم میزنند راه پیدا کنند یا نکنند .

2. Translate the following into Persian :—

(a) After some months that vessel reached an unknown island and cast anchor there. The sailors disembarked and were invited by the sovereign of the island to lunch with him. But when they sat down at the royal table, they saw that, it is impossible to eat as much as even one morsel in comfort, because the King's palace is full of mice and rats, which are so daring that they snatch the morsels from the guests' hands. Upon this one of the sailors brought the cat. It busied herself in the chase, after which not a single mouse dared to show its snout.

(b) If we possess not the power of self-government we shall be the prey of every loose inclination that chances to arise. Pampered by continual indulgence, all our passions will become mutinous and headstrong. Desire, not reason, will be the ruling principle of our conduct.

## SANSKRIT.—FIRST PAPER.

1. Translate into English the following passages:—

(a) उपकारिणि विस्त्रब्धे शुद्धमती यः समाचरति पापम् ।  
तं जनमसत्यसन्धं भगवति वसुधे कथं वहसि ॥

(b) अत्र देशे महत्याऽनादृष्टया दुर्भिक्षं संजातम् । दुर्भिक्ष-  
त्वाज्जनी बुभुक्षापीडिताः कोऽपि बलिमात्रमपि न प्रयच्छति ।  
अपरं गृहे गृहे बुभुक्षितजनैर्विहङ्गानां बन्धनाय पाशाः  
प्रगुणीकृताः सन्ति । अहमप्यायुश्शेषतया पाशेन बद्धउदुरि-  
सोऽस्मि ॥

2. (a) Explain or expound the compounds (*i.e.*, give their  
विमहवाक्य) underlined in the above extracts.

(b) What is the प्रकृति and प्रत्यय in उद्धरितः ?

(c) Conjugate the root of तज्ज्ञाताम् and प्रयच्छति and the  
root ह in the second preterite (लिट्).

3. Translate any two of the following passages into  
English or Hindi.

(a) केवलं व्यसनस्योक्तं भेषजं नयपरिहितैः ।

तस्योच्छेदसमारम्भो विषादपरिवर्जनम् ॥

(b) आपदां कथितः पन्था इन्द्रियाणामसंयमः ।

तज्जयः सम्पदां मार्गो येनेष्टं तेन गम्यताम् ॥

(c) लुब्धमर्थेन गृह्णीयात् क्रुद्धमञ्जुलिकर्मणा ।

मूर्खं हृन्दानुवृत्तेन याथातथ्येन परिहितम् ॥

(d) भो भोः तपस्विन् धर्म्मोपदेशक आवयोर्विवादो  
वर्तते । तदुर्भशास्त्रद्वारेणास्माकं निर्णयं देहि । यो  
हितवादी स ते भक्ष्यइति ॥



4. (a) Parse the words underlined in the extracts under question III.

(b) State the rules of सन्धि पन्थाइन्द्रियाणाम्, सञ्जयः, आवयोर्विवादेवर्त्तते and भक्ष्य इति. How do you account for the loss of विसर्ग after स in the phrase सते while the *visarga* after स in the passage सोऽपि स भक्षयित्वा तस्य परोक्षेऽन्यानपि भक्षयति is changed into उ ?

(c) Conjugate the root बन्धू and यम् in the Present.

(d) Decline the base शप्भुञ्, in the nominative and accusative, क्रीडिष् in the nominative, and इतर in the accusative.

5. Turn the following passages into Sanskrit prose using words different from the text and avoiding compound words as far as you can.

तां सत्यनामां दृढतीरगार्गलाम्

गृहैर्विचित्रैरुपशोभितां शिवाम् ।

पुरीषयोध्यां नृसहस्रसङ्कुलाम्

शशास वै शक्रसमो सहीपतिः ॥

नाल्पसन्निचयः कश्चिदासीत्तस्मिन् पुरीषमे ।

कुटुम्बी यो ह्यसिद्धार्थोऽगवद्याधनधान्यवान् ॥

अपि सन्दत्त्वसापन्नो नष्टो वापीष्टदर्शनात् ।

प्रायेण प्राणिनां भूयो दुःखावेगोऽधिको भवेत् ॥

### SANSKRIT.—SECOND PAPER.

1. Translate into English the following passages :—

(a) इन्द्रुं विषं च ह्वावपि शिवः स्वीकरोति । किंत्विन्द्रुं शिरोधारणपूर्वकं प्रशंसति विषं च स्वकण्ठे नियच्छति । एयं प्राज्ञो नरः क्रस्य चिन्नरस्य गुणं दोषमुभावपि गृह्णाति । किन्तु

गुणं ग्रीवान्दोलनपूर्वकं प्रलाघते दीपं तु स्वकण्ठे नियम्य  
तन्नाममात्रमपि विलोपयति ॥

(b) पुरा किल पुरुरवा नाम राजा बभूव । स उर्वशी  
दैत्यहस्तान्मुमोच । ततः चित्ररथो राजानमेत्याह—‘महत्खलु  
मघोनः प्रियमनुष्ठितं भवता । स भवन्तं द्रष्टुमिच्छति’ ।  
ततो राजा ‘सखे नायं जनावसरः शतक्रतुं द्रष्टुम्’ इत्युक्त्वा  
न ययौ ॥

(c) हा राम हा रमण हा जगदेकवीर  
हा नाथ हा रघुपते किमुपेक्षसे मायू ।  
इत्थं विदेहतनयास्सुहुरालपन्ती-  
मादाय राक्षसपतिर्नभसा जगाम ॥

(d) न सा सभा यत्र न सन्ति वृद्धाः  
वृद्धा न ते ये न वदन्ति धर्मम् ।  
धर्मः स नो यत्र न सत्यमस्ति  
सत्यं न तद्यच्चलमभ्युपैति ॥

(e) मन वचस्तस्य हृदये दूढं पदं लेभे ॥

(f) पदं हि सर्वत्र गुणैर्निधीयते ॥

(g) शैत्यं हि यत्सा प्रकृतिर्जलस्य ॥

(h) न धर्मवृद्धेषु वयः समीक्ष्यते ॥

2. Translate into Sanskrit:—

(a) He obtained a fruit of his desires.

(b) Men commit misdeeds, though gods see them.

(c) I cannot bear to see even poor men disrespectfully  
treated.

(d) Good books are dearer to clever students, than fine  
clothes.

(e) Friends will swarm round a man by hundreds but  
in adversity they will leave him;

3. Compose three short sentences using in (a) the First Person—Plural—Present Tense (जद्) from the root स्था ; in (b) the Dative—Singular form of the word अस्मद् ; and in (c) the Second Person—Dual—First Preterite (लद्) from the root कृष् ॥

### HISTORY.

1. Explain the following terms :—  
Domesday Book, Crusades, Presbyterians, Parliament.
2. Give in their chronological order the names of the Angevin kings and the dates of their accession. Why are they so called ?
3. Write concise notices of the following, and give dates :—  
The Roman Conquest, The Discovery of America, The Restoration, The Revolution.
4. State what you know of the Union of England with Scotland. Give dates.
5. Give some account of the English colonies in America in the time of George II. How were they founded and when were they lost to England ?
6. When and where was Gautama Buddha born, and when and where did he die ? What were the doctrines which he taught ?
7. Name the victorious and the defeated sides in each of the following battles, with dates :—Fatehpur Sikri, Jhelum, Swally, Kurda, Talikot, Porto Novo.
8. Write a short history of Sher Shah and an estimate of his administration.
9. What were the provisions of the Regulating Act and Pitt's India Bill respectively ?
10. Who were the Amirs of Sindh, and when do we first hear of them ? Relate the circumstances attendant upon the annexation of their country.

### GEOGRAPHY.

- N.B.*—Candidates are advised not to omit Question 6.
1. (a) Which of nature's great forces help to form soil ?
  - (b) Explain the nature of tides, monsoons and climate.
  - (c) Your text-book states that the snow-line on the north side of the Himalayas is about 3,000 feet higher than it is on the south side : what is the cause of this ?

2. What is meant by the term "the communications of a country?" Show how the progress of a country is affected by its communications. Give examples.

3. What are the main natural divisions of South America? In what striking respect is its relief different from that of North America and Africa?

4. (a) What countries of the world are inhabited by the following people:—Berbers, Magyars, Eskimos, Maories, Hottentots and Singhalese?

(b) Explain the following, giving in each case one good example.

- i. An Absolute Monarchy.
- ii. A Limited Monarchy.
- iii. A Republic.

5. (a) In what parts of India are the following product principally found:—

raw cotton, raw jute, tea, rice, wheat, opium, salt and coal?

(b) Of late years the resources of India have increased considerably; this means an increase of revenue. On what does the Government spend this revenue?

6. Draw a map of England and Wales taking care to insert:

- (1) The principle ports.
- (2) The chief towns of the cotton and woollen districts.
- (3) The important mountains.

7. (a) Give a brief account of the Transvaal Colony.

(b) Name the chief rivers of Africa together with their sources and the seas into which they empty themselves.

8. What do you know of:—

The Great Carrier Reef. Kiel, Lhasa, Victoria Nyanza, St. Gothard, Sirocco, Madagascar, Manchuria, Yemen, Polders, Tokyo and Saskatchewan?

## EOMETRICAL DRAWING.

*Time allowed—2 hours.*

Note—Scales and figures to be neatly inked in; all construction lines to be left in pencil.

1.—Draw a scale to measure distances of from 1 foot to 50 feet, and to show inches by the diagonal method. Draw a

line and set off on it from the scale a distance of 42 feet 7 inches. Representative fraction  $\frac{1}{125}$

2.—From a point P outside a circle of  $1\frac{1}{2}$ -inch radius draw two tangents containing an angle of  $30^\circ$ .

3.—Mark three points not in a straight line. Find a point equidistant from each of them.

4.—The centres of two circles, radii  $\frac{3}{4}$ -inch and  $\frac{1}{2}$ -inch respectively, are  $1\frac{1}{2}$  inches apart. Find a point K in the circumference of the larger circle 2 inches from the centre of the other. Describe a circle to pass through K and to touch and enclose both circles.

5.—Draw a circle of  $1\frac{1}{2}$ -inch radius. In it place an octagon and about it a nonagon.

6.—Draw a straight line  $2\frac{1}{2}$ -inches long, and describe a quadrant of a circle touching the line at one extremity.

## ELEMENTARY PHYSICS AND CHEMISTRY.

1. Explain clearly the difference between the mass and weight of a body. Can the mass or weight of a given body ever change? Describe the different kinds of balance you know, explaining the principle of working in each case.

2. If a boy whose mass is 60 lb sits on one side of a balanced see-saw at a distance of 8 feet from the log upon which it rests, how far from the log must a boy whose mass is 120 lbs. sit in order to keep the see-saw level?

3. Define Density. Describe in detail how you would determine accurately the density of a liquid like mercury.

A solid weighs 150 grammes in air and 120 grammes in water. Find out its (1) volume and (2) density.

4. Describe some simple experiments to shew the pressure of the air in various directions and indicate how this pressure can be measured.

5. If the column of mercury (density 13.6) stands 30 inches in the barometer, calculate the height at which glycerine (density 1.26) will stand.

6. When salt is put into water, it disappears; in what different ways can you shew that the salt is not really destroyed? Describe fully what happens when copper is put into nitric acid and the liquid evaporated.

Explain clearly in what respects the above two cases differ from and agree with one another.

7. What are crystals and how are they generally made? Describe how you would make crystals of alum, salt, and sulphur, and also the form and colour of the crystals. What happens when these crystals are heated?

8. Describe the general effects observed on heating a body.

9. Heat is applied steadily to a quantity of ice; describe in detail the successive changes you notice. Is there any difference in the behaviour of ice and sulphur in this respect?

### BOOK-KEEPING.

1. Classify accounts, and give a few examples falling under your classification.

2. What is meant by opening an Account? What is a Debtor Balance?

3. Why is a Profit and Loss account necessary?

4. What is the difference between a Promissory Note and a Draft? How are they used in the discharge of liabilities?

5. State clearly the difference between a Bill Receivable and a Bill Payable.

6. Journalise and Post the following. Balance and close the Ledger.

Oct. 1. Cash on hand 410. In Bank 3,000. Goods on hand 5,000. Bills Receivable on hand 2,340.

Due to Johnson 3,250, due to Jackson 1,500.

" 3. Sold goods to Johnson 1,200 and received P/N for the amount.

" 5. B. R. for 900 paid at Bank.

" 7. Bot goods from Jackson 500 and endorsed to him B. R. for 1,000.

" 10. Sold goods to Bennett 1,300 and drew on him @ 2 M. D. in favour of Johnson for the amount.

" 12. Bot goods from Kay 470 and endorsed to him B. R. 440, the balance being discount.

" 15. Paid sundries 50.

" 18. Sold goods for a cheque 800.

- Oct. 22. Discounted Johnson's P/N receiving Cash 1,170.  
 " 25. Sold goods to Kay for 1,100.  
 " 28. Benson's acceptance for 1,000 remitted by Kay in  
 part payment.  
 " 30. Rent paid by cheque 200.  
 Allow Int. on Capital @ 6 %.  
 Value goods on hand @ 1850.

### POLITICAL ECONOMY.

1. What are the Economic advantages of Foreign Trade? Show that the Home Country and the Foreign Country both benefit by an exchange of Commodities.
2. What is rent? Mention some of the causes of variations in rents.
3. Discuss the effect of a rise in prices on :—  
 (a) Producers, (b) Producers, (c) Non-Productions.
4. Explain Value. Illustrate your answer by a consideration of the relative values of a loaf of bread, a hat, and a diamond ring.
5. Exhibit the fallacy underlying "The Standard of Comfort" Theory with regard to the wages of the employed.
6. Under what circumstances might there be a high rate of interest on borrowed capital, even when the risk is not very great?  
 Can an increased demand for capital be accompanied by a lowering of the rate of interest?
7. Briefly describe the four chief functions of Bankers.

### ENTRANCE AND SCHOOL-FINAL EXAMINATIONS, 1907.

#### ENGLISH.—FIRST PAPER.

(Write the answers to the different sections in separate answer-books.)

#### A.

1. In the following passages explain the portions italicised :—

(a) There is *a courage that breaks out in bravado*, the exuberance of high spirits, delighting in defying peril for its own sake, not indeed producing deeds which deserve to be called golden, but which, from their *heedless grace*, their desperation, and absence of all base motives—except perhaps vanity—have an undeniable charm about them, even when we doubt the right of *exposing a life in mere gaiety of heart*.

(b) Long, long was the line of chained Gauls of every tribe, before the four white horses appeared, all abreast drawing the gilded car, in which stood a slight form in a purple robe, with the bald head and narrow temples encircled with a wreath of bay, the thin cheeks tinted with vermilion, *the eager aquiline face and narrow lips gravely composed to Roman dignity*, and the quick eye searching out what impression the display was making on the people. Over his head a slave held a golden crown, but whispered, "*Remember that thou too art a man.*" And in following that old custom, how little did the victor know that, bay-crowned like himself, there followed close behind, in one of the chariots of the officers, *the man whose dagger-thrust would, two years later, be answered by his dying word of reproach?*

(c) Thou'rt gone—the abyss of heaven

*Hath swallow'd up thy form—yet on my heart*

*Deeply hath sunk the lesson thou hast given,*

*And shall not soon depart.*

*He, who from zone to zone*

*Guides through the boundless sky thy certain flight,*

*In the long way that I must tread alone,*

*Will lead my steps aright.*

(d) E'en such is man, whose borrow'd light

*Is straight call'd in and paid to-night*

*The wind blows out, the bubble dies ;*

*The Spring entomb'd in Autumn lies ;*

*The dew dries up, the star is shot,*

*The flight is past :—and man forgot.*

2. Write short accounts of the following :—Regulus ;

Sir Thomas More's daughter.

(Each account not to exceed a page of the answer-book).

B.

3. Explain clearly each of the following :—

(a) An exile from home, splendour dazzles in vain.

Oh ! Give me my lowly thatch'd cottage again ?

(b) Thanks, gentle swain, for all my woes,

And thanks for this effectual close,



And cure of every ill !  
More cruelty could none express ;  
And I, if you had shown me less,  
Had been your prisoner still.

- (c) " Good friend," said Hal, and sighed the while,  
" Farewell ! and happy be ;  
But say no more if thou'dst be true,  
That no one envies thee.  
Thy mealy cap is worth my crown,—  
Thy mill, my kingdom's fee ;  
Such men as thou are England's boast,  
O Miller of the Dee !"

(d) " Every man for himself," is the most fatal of all policies, even were self-preservation the primary object.

4. Relate the " Golden Deed" in the poem " Casabianca."  
(Your answer not to exceed two pages).

### C.

1. Explain in your own words the meaning of the second stanza below :—

Stern Daughter of the voice of God !  
O Duty ! if that name thou love,  
Who art a light to guide, a rod.  
To check the erring, and reprove ;  
Thou who art victory and law  
When empty terrors overawe ;  
From vain temptations dost set free,  
And calm'st the weary strife of frail humanity !  
There are who ask not if thine eye  
Be on them ; who in love and truth.  
Where no misgiving is, rely  
Upon the genial sense of youth :  
Glad hearts ! without reproach or blot,  
Who do thy work, and know it not :  
Long may the kindly impulse last !  
But thou, if they should totter, teach them to stand  
fast.

2. Explain the italicised parts in the following passage :—

*The mythic element cannot be eliminated out of history.* Men who play leading parts on the world's stage gather about them the admiration of friends and the animosity of disappointed rivals or political enemies. *The atmosphere becomes charged with legends of what they have said or done*—some inventions, some distortions of facts, but rarely or never accurate. Their outward acts, being public, cannot be absolutely misstated; *their motives, being known only to themselves, are an open field for imagination*; and as the disposition to believe evil rather than good, the portraits drawn may vary indefinitely, according to the sympathies of the describer but are seldom too favourable. The more distinguished a man is the more he is talked about. Stories are current about him in his own life-time, guaranteed apparently by the highest authorities; related, insisted upon; time, place, and circumstance accurately given—most of them mere malicious lies; *yet, if written down, to reappear in memoirs a hundred years hence, they are likely to pass for authentic, or at least probable.*

### ENGLISH.—SECOND PAPER.

(Write the answer to the different sections in separate answer-books.)

#### D.

1. Write short grammatical notes on the italicised words and phrases in the following sentences :—

- (a) *Who* do you think I am ?
- (b) *Whom* do you think me to be ?
- (c) *Either you or I* am wrong.
- (d) Whether is the lark or the thrush the *sweeter* singer.
- (e) He has been engaged in this office for *the last six months*.
- (f) Three *month's* salary was paid.
- (g) Johnson's "Lives of the Poets" is being reprinted.
- (h) That is one of the best books that *have* ever been written.

(i) Rama and not you *is* to blame.

(j) Spenser as well as Shakespeare *was* a great Elizabethan poet.

2. Parse the words underlined in the following sentence :—

(1) To learn to take interest in what is evil is always mischievous.

(2) Till the young and ardent learn absolutely to look upon danger as an occasion for evincing the highest qualities.

(3) Therefore it is that we are struck by hearing of the exposure of life to the utmost peril.

(4) Daring for the sake of plunder has been found in every robber.

(5) I have done that which it was my duty to do.

(6) E'en heroes of immortal sire  
And mortal mother born expire.

(7) Polynices had been wandering through Greece seeking aid to recover his rights.

3. Parse the words underlined in the following sentences :—

(1) It was a saying on the coast, that it was worth while to be wrecked.

(2) The while our Ahmad lies asleep.

(3) He watches for us while we sleep.

(4) Yet she was full of the warmest sympathy.

(5) He knew full well what the result would be.

And analyse in tabular form :—

He knew full well what the result would be.

### E.

4. Construct sentences using :—

(a) *charm* (1) as a noun, (2) as a verb.

(b) *like* (1) as an adjective, (2) as a preposition, (3) as a verb.

(c) *as* (1) as a conjunction, (2) as a relative pronoun, (3) as an adverb.

(d) *trifle* (1) as a noun, (2) as a verb.

(e) *that* (1) as an adjective, (2) as a conjunction, (3) as a relative pronoun, (4) as a demonstrative pronoun.

(f) *before* (1) as a preposition, (2) as a conjunction.

5. (1) Form verbs from :—

(a) the following *nouns* : cloth, glass, captive, author, force, dew.

(b) the following *adjectives* : bright, equal, able, calm.

(2) Form adjectives from :—

(a) the following *nouns* : pride, heat, wit, health, peace, gold, passion.

(b) the following *verbs* : act, please, hate.

6. Analyse in tabular form :—

And when half-drowned sailors were brought ashore, she remained to give care and directions for their treatment, or took them to her own home, where there were so welcomed that it was a saying on the coast that it was worth while to be wrecked to be received by Miss Gurney.

## F.

7. Rewrite the following passage, in prose order, changing the direct form of speech into the indirect form :—

Exceeding peace had made Ben Adhem bold,  
And to the Presence in the room he said,  
“What writest thou”?—The vision raised its head,  
And with a look made of all sweet accord  
Answered, “The names of those who love the Lord.”  
“And is mine one”? said Abou. “Nay, not so,”  
Replied the angel. Abou spoke more low,  
But cheerly still, and said “I pray thee then,  
Write me as one that loves his fellow-men.”

8. (1) Parse *but* in the following sentences :—

(a) Whence all *but* he had fled,

(b) And *but* the booming shots replied.

(c) And shouted *but* once more aloud.

(d) *But* the noblest thing which perished there was that young faithful heart.

(e) Unshrinking obedience, heeding *but* the one matter in hand, is the rule.

(f) No rest *but* death for horse or man.

(g) It is plain that you are *but* young.

(2) Explain the meanings of the following words, showing the force of the suffixes used :—

*faithful, kingdom, lifeless, lifelike, healthy, manly, childish, peaceable, handsome, headlong, brouden, sparkle.*

### THIRD PAPER.

#### ENGLISH COMPOSITION.

“The heights by great men reached and kept  
Were not attained by sudden flight.”

#### URDU.

(N.B.—Write the answers to the different sections in separate answer-books.)

Translate into English :—

G.

کسی جنگل میں ایک ندی سے تھوڑے دور پر دو سپاہی  
یکجا بیٹھے تھے۔ انہوں نے دیکھا کہ جنگل سے بھیڑے  
تین بچے ایک لڑکے کے ساتھ نکلے اور ندی میں پانی پینے گئے۔  
جب وہ پانی پیکر لوٹے تب سپاہیوں نے اونپر دھاوا کیا۔  
وہیں پاس ہی اونکی ماند تھی اوسیکے طرف وہ چارو بھگے۔  
سپاہیوں نے اونکا پیچھا کیا۔ بھیڑے کے بچے تو نکل گئے  
پر لڑکا ماند تک نہ پہونچسکا۔ بیچ ہی میں ایک سپاہی  
نے اوسکی پیچھلی قانگ پکڑ کر اوسے پیچھے کھینچ لیا۔  
اوسنے بڑے غصہ میں آکر سپاہیوں پر چوت کیا اور اونکو  
کئی جگہ پر کات کتایا۔ بڑی مشکل سے اونہوں نے اوسکو  
کسی طرح گرفتار کیا۔ اوسے دھر لائے۔ کچھ دنوں تک  
سوائے کچے گوشت کے اور کچھ بھی اوسے کھلا نہ سکے۔ اُس

لڑکے کو کوئی چھہ برس پہلے کوئی بھیڑیا اوتھا لیگیا تھا۔ جب اوسکی ماں نے لڑکے کے پکڑ جانیکی خبر پائی تب وہ وہاں گئی اور اوسنے اوسے پہچان لیا۔ وہ اوسکو اپنے گھر لے آئی۔ گو ماں نے بہت کوشش کی لیکن وہ اپنے منہ سے ایک لفظ بھی نہ بولسکا۔ تھوڑے دنوں میں اوسنے روتی کھانا سیکھا پر رات کو جنگل میں چلا جایا کرتا تھا۔ اوسکو کچھا گوشت بنسبت پکے ہوئے کے زیادہ پسند تھا۔ یہاں تک کہ اگر کوئی گاٹے یا بیل مر جاتا اور اوسکا چہرہ کھینچ لینے کے بعد اوسکا بدن پڑا رہ جاتا تو وہ فوراً وہاں پہنچتا اور کتوں کی طرح اوسے کھاتا۔

H.

صحرائے افریقہ اس زمانہ میں محض رتیلا ہے۔ سیکڑوں کوس نہ کہیں پانی کا نام ہے اور نہ کوئی درخت ہے۔ آج تک کوئی آدمی اس صحراء کے پار نہیں جاسکا تھا۔ مگر حال میں ایک فرانسیسی مسافر نے اوسکو پار کر لیا۔ وہ لکھتا ہے کہ کسی زمانہ میں یہ صحراء خوب ہی ہرا بھرا تھا اور اچھی طرح بسا ہوا تھا۔ اوسے وہاں بہت سی قبریں ملیں۔ پتھروں پر جانوروں اور پرندوں اور آدمیوں وغیرہ کی کھدی ہوئی تصویریں ملیں۔ آقا پیسنے کے چکبوں کے پتھر ملے۔ اور بہتیرے قسم کے ہتھیار اور اوزار ملے۔ اس فرانسیسی مسافر نے ان باتوں سے ثابت کیا ہے کہ اس صحراء میں کسی زمانہ میں کروڑوں آدمی بستے تھے اور کھیتی باری وغیرہ کر کے خوشی سے اپنی زندگی بسر کرتے تھے۔ مگر جیوں جیوں پانی کم برستا گیا تیوں تیوں آدمی اس ملک کو چھوڑتے گئے۔ اور اب ایسا زمانہ ہے کہ وہاں آدمی کیا گھاس پھوس تک کا ہونا ناممکن ہے۔

## HINDI.

(N.B.—Write the answers to the different sections in answer-book)

Translate into English :—

G.

किसी जंगल में एक नदी से थोड़े दूर पर दो सिपाही एक जगह बैठे थे। उन्होंने देखा कि जंगल से भेड़ियों के तीन बच्चे एक लड़के के साथ निकले और नदी में पानी पीने गये। जब वे पानी पीकर लौटे तब सिपाहियों ने उन पर धावा किया। वहीं पास ही उनकी सांढ़ थी। उसी के तरफ वे चारों भागे। सिपाहियों ने उनका पीछा किया। भेड़ियों के बच्चे तो निकल गये पर लड़का सांढ़ तक न पहुँच सका। बीच ही में एक सिपाही ने उसकी पिछली टांगे पकड़ कर उसे पीछे खींच लिया। उसने बड़े क्रोध में आकर सिपाहियों पर चोट किया और उनको कई जगह पर काट खाया। बड़ी मुश्किल से उन्होंने ने उसे किसी तरह पकड़ा। और उसे धर लाये। कुछ दिनों तक सिवा कच्चे मांस के और कुछ भी उसे न खिला नके, इस लड़के को कोई ६ वरस पहिले भेड़िया उठा ले गया था। जब उसकी नाने लड़के के पकड़ जाने की खबर पाई। तब वह वहाँ गई और अपने उसे पहचान लिया। वह उसको अपने घर लाई। यद्यपि नाने बहुत कोशिश की पर वह लड़का अपने मुँह से एक शब्द भी न बोल सका। थोड़े दिनों में उसने रोटी खाना नीरा। पर रात को जंगल में चला जाया करता था। उसे कच्चा मांस पक्के की अपेक्षा अधिक पसन्द था। यहाँ तक कि यदि कोई गाय या बैल मर जाता और उसका चमड़ा खींच लिये जाने

पर लाश पड़ी रह जाती तो वह वहां फौरन पहुंचता और कुत्तों की तरह उसे खाने लगता ॥

आफ्रिका की मरुभूमि इस समय बालुकामय है। सैकड़ों कोस न कहीं पानी का नाम है न बनस्पति का। आज तक कोई आदमी इस मरुस्थल के पार नहीं जा सका था। पर हाल में एक फ्रांसीसी मुसाफिर ने उसको पार कर लिया। वह लिखता है कि किसी समय आफ्रिका का यह सहारा खूब ही हरा भरा था और अच्छी तरह बसा हुआ था। उसे वहां बहुत सी कब्रें मिलीं। पत्थरों पर पशुओं पक्षियों और आदमियों आदि की खुदी हुई तस्वीरें मिलीं। आटा पीसने की चक्कियों के पत्थर मिले और बहुत प्रकार के अस्त्र शस्त्र और औजार मिले। इस फ्रांसीसी मुसाफिर ने इन बातों से साबित किया है कि इस मरुस्थल में किसी समय करोड़ों आदमी बसते थे। और कृषि आदि कारको आनन्द से अपना जीवन निर्वाह करते थे। पर जैसे २ पानी कम बरसता गया मनुष्य इस प्रदेश को छोड़ते गये। और अब ऐसा समय है कि वहां आदमी क्या घास फूस तक का होना असम्भव है ॥

### MATHEMATICS.—FIRST PAPER. ARITHMETIC AND ALGEBRA.

1. Is 823 a prime number? Why is it unnecessary to try factors above 23 in answering the question?
2. Show that to 3 Figures  $\pi = \frac{22}{7}$  and that to 5 figures  $\pi = \frac{355}{113}$  where  $\pi = 3.14159265$ .
3. Find the quotient of 68937825 by 726328 correct to four figures.
4. Find to three decimal places the square root of 5.
5. Show that

$$(a^2 + b^2)(c^2 + d^2)(ac + bd)^2 + (ad - bc)^2.$$



6. Simplify

$$\frac{a^2}{(a-b)(a-c)} \times \frac{b^2}{(b-c)(b-a)} \times \frac{c^2}{(c-a)(c-b)}$$

7. Resolve into factors  $x^6 - y^6$ .

8. Solve  $\frac{x-1}{2} - \frac{x-3}{4} + \frac{x-5}{6} = 4$ .

9. Solve  $\frac{x+y}{8} + \frac{x-y}{6} = 5$ ,  $\frac{x+y}{4} - \frac{x-y}{3} = 10$ .

10. A can do half as much work as B; B can do half as much as C, and together they can complete a piece of work in 42 days: in what time could each alone complete the work?

## MATHEMATICS.—SECOND PAPER.

### GEOMETRY AND MENSURATION.

1. (a) Prove that the interior angles of a Polygon of  $n$  sides are together equal to  $2(n-2)$  right angles.

(b) Can any regular Polygon have each of its interior angles (i)  $156^\circ$ , (ii)  $158^\circ$ , (iii)  $160^\circ$ ?

2. (a) In a right angled triangle the square on the hypotenuse is equal to the sum of the squares on the sides containing the right angle.

(b) Construct a square whose area is three times a given square.

3. (a) Prove the theorem "If a straight line is divided equally and also unequally, the rectangle contained by the unequal parts, and the square on the line between the points of section are together equal to the square on half the line": and

(b) Write down the corresponding algebraical identity.

4.  $ABC$  is a triangle obtuse angled at  $C$ , and  $AD$  is drawn perpendicular to  $BC$  produced. If  $AB=9$ ,  $BC=5$ ,  $CA=6$ , find  $CD$ .

5. (a) Prove that the straight line drawn at right angles to the diameter of a circle at one of its extremities is a tangent to the circle.

(b) Describe a circle which shall pass through a given point and touch a given straight line at a given point.

6. (a) Prove that the angle in a semi-circle is a right angle.

(b) Through a fixed point  $P$  a straight line is drawn to meet a circle in  $R$  and  $S$ . Find the locus of the middle point of  $RS$ .

7. Prove that through three points not in the same straight line, one, and only one, circle can be drawn.

8. The sides of a triangle are 132, 125 and 37 feet respectively: find the perpendicular distance of its longest side from the opposite vertex.

9. A circular running track is 6 yards wide, and 130 yards in inside diameter. Find the area of the track and the length of a lap at a distance of one yard from the inner edge, ( $\pi = \frac{22}{7}$ ).

10. Draw a plan and find the area of a field from the following notes.

	Yards	
	To $\odot B$	
	250	98 to $F$
To $D$ 64	155	
To $C$ 86	77	
	$\odot$	48 to $E$
	From $\odot A$	

### ARABIC.—FIRST PAPER.

1. Translate the following into English:—

فلما سمع الخليفة من نعم هذه الابيات قال والله طيب -  
والله مليح - لله درك يا نعم - ما افصح لسانك وما  
اوضح بيانك - ولم يزالوا في فرح وسرور الي نصف الليل -  
ثم قالت اخت الخليفة اسمع يا امير المؤمنين اني رايت  
حكاية في الكتب عن بعض ارباب الهراتب - قال الخليفة وما  
تلك الحكاية؟ فقالت له اخته اسمع يا امير المؤمنين انه  
كان بهدينة الكوفة صبي يسمى فحمة بن الربيع و كان له

جارية يحبها وتعبه وكانت قد تربت معه في فراش واحد -  
 قلبها بلغا وتكن حبها من بعضها وماها الدهر بتكايتها -  
 وجار عليها الزمان بأفاته - وحكم عليها بالفراق - و  
 تحيلت عليها الوشاة - حتي خرجت من داره - واخذوها  
 سرقة من مكانه

2. Explain the usages of the following expressions:—

(a) سبعا و طاعة (b) الله دورى

(c) علي رغم العدي (d) سبعا الله

(e) تسبح بالعميد خير من ان تراه

(f) مناسك الحج و الثبح

3. Translate the following into English:—

فقالته الهامة	من لك بالسلامة
نعم الرفيق الرفق	بئس القرين الضرق
العجب بئس الخلقة	الهكر ادني خلقة
البخل عيب فاضح	الجود ستر صالح
شر الحق الكذب	خير الخل الاذنب
الصمت اوفي منه	الجود خير منه
العقل قاض عادل	العجب داء قاتل
الصبر سيف ماض	الراي نعم القاضي
الجهل شين لغتي	الشيب موت اذاتي

4. Re-write the following with diacritical marks carefully set, and mention the allusions referred to:—

ابالهب تبست يداك ابالهب  
 وصخرة بذت الحرب حماله الخطب

خذلت نبي الله قاطح رحمة  
 فكنت كهن بقاء السلامة بالعطب

لغوت ابي جهل فاصبحت قابعة  
له و كذاك الرأس يتبعه الذنب

فاصبح ذاك الامر عارا بهيابه

عليك حجيج البيت في موسم العرب

ولو لان عن بغض الاعادي محبدا

لعماسي ذروة بالرماح و بالقضب

والن تشبهوه او يصرع حوله

رجال ملاء بالخروب ذو وحسب

5. Write a short biography of عاي المرتضى

6. Translate the following into English, explaining the grammatical pun referred to :—

جاء نحوي على باب نحوي فذق بابه - فقال من انت ؟ فقال

الزائر - احمده - فاجاب صاحب الدار انصرف - فقال احمده

لاينصرف - فاجاب اذا كان فكرة ينصرف

7. For each of the following words mention another Arabic word of opposite signification, with their English equivalents :—

فوق - ليل - يهين - بحر - شتاء - مدح - موت -

بقاء - بيع - معرفة - شيب and سهاء

8. Analyse the following :—

الهي انت ذو فضل ومنّ واني ذو خطايا فاعف عني

9. Write the peculiarities (خاصيات ارباب) of any three of the following :—

افعال - تفعيل - تفاعل - تفعل and مفاعلة

### ARABIC.—SECOND PAPER.

Translate the following into English :—

(α) يا ابن آدم اخرج حب الدنيا من قلبك - فانه لا

يجتمع حب الدنيا و حب الله في قلب واحد ،

(b) حكى ان ملكا بنى قصرا وقال انظروا ان كان فيه عيب فاصحوا - فقال رجل من الزهاد ارى فيه عيبين - فقالوا له وما هما ؟ قال يهوت الهالك ويخرب القصر - فقال الهالك صدقت - ثم اقبل على الله وترك القصر والدنيا ،  
(c) قيل لحكيم اي الهلوك افضل - ملك اليونان ام ملك الفرس ؟ فقال من ملك غضبه وشهوته فهو افضل ،  
(d) ايام الدهر ثلاثة - يوم مضى لا يعود اليك - ويوم انت فيه لا يدوم عليك - ويوم مستقبل لا تدري ما حاله ولا تعرف من اهله ،

(e) سئل سقراط لها لا تتكلم ؟ اجاب خلق لنا اذان وفم واحد - لكيما يسبح الانسان اكثر مما يكتم ،  
(f) قال بعض الهلوك لوزير يوما ما احسن الهالك لو كان ذاتها - فقال الوزير لو كان ذاتها ما وصل اليك ،  
(g) قال احمق لابنه اي يوم صلينا الجمعة في المسجد - فقال لقد نسيت ولكن اظنه يوم الثلاثاء ،

(h) الم تعلم ان الله علي كل شئ قدير ؟ كن نصبر علي طعام واحد - قال ابراهيم رب ارني كيف تحي الهوتي ؟ الله يرزق من يشاء بغير حساب - يا بني لا تشرك بالله ان الشرك لظلم عظيم - كيف تكفرون بالله وكنتم امواتا فاحياكم - ثم يميتكم ثم يحييكم ثم اليه ترجعون ،

2. Translate the following into Arabic, and give diacritical marks اعراب very carefully to your translation :—

- (1) I passed by Zaid.
- (2) They bought the horse.
- (3) By God I will certainly do so.
- (4) Ahmad is in the city.
- (5) I travelled from Allahabad to Bombay.
- (6) He (God) will pardon your sins.
- (7) There is nothing like Him (i.e., God).

- (8) I did not see him since Friday.
- (9) By God, I will never drink wine.
- (10) Hamid is absent but Mohammad is present.
- (11) Twenty-two men are going to Mecca.
- (12) How many *dirhams* have you in your purse?
- (13) The poor man became rich.
- (14) She is going to buy a horse for me.
- (15) Boys and girls are going to school.
- (16) Twenty, thirty, forty, fifty, sixty, seventy, eighty, and ninety.
- (17) One, two, three, four, five, six, seven, eight, nine, and ten.
- (18) Work hard for your examination.
- (19) The youth became an old man.
- (20) Sit as long as Mahmud is sitting.
- (21) I will go if you (dual) go.
- (22) We will not come if you (all) do not come.
- (23) We have had enough rain.
- (24) Two men and three women were present.
- (25) Every thing is to die out except Allāh alone.

### PERSIAN—FIRST PAPER.

1. Translate the following into English:—

(1) اما صاحب دنیا که بعین عنایت حق ملحوظ است و بحلال از حرام محفوظ - من همان انکار که تقریر این سخن نگفتم و بیان و برهان نیاوردم انصاف از تو توقع دارم - که هرگز دیدی دست دشمنان برکتف بسته یا بینوائی بزندادان در نشسته یا پرده معصومی دریده یا کفی از معصم بریده - الا بعات درویشی - شیر مردان را بحکم ضرورت در نقبها گرفته اند و کعبها سفته - اغلت تهیدستان دامن عصمت به عصیت آلایند و گرسنگان ربایند

(2) و گناهگار فروتن به از نیکو کار سرکش - نادان است کسی که از کهتری بهتری رسیده باشد ویرا بهمان چشم کهتری بیند - و بیشرمی از آن بتر نبود کسی را که چیز نداند و بخود بندد - و فریفته کسی است که یافته

به نیافته دهد - و فرومایه کسی است که مردمان را برو  
خواهش افند و او را توانائی بر آوردن آن باشد و نکند  
(3) هواے آگوه گرم و خشک است - سخن اطبا ان است  
که روح را بتخلیل می برد و ضعف می آرد و به اکثر  
طبائع ناسازگار است - مگر بلخهی و سوداوی مزاجان را که  
از ضرر آن ایمن اند - و ازین جهت است حیواناتی که این  
مزاج و طبیعت دارند مثل فیل و گاومیش و غیران درین  
آب و هوا خوب می شوند

(4) اما تقدیم خدمت فقرا و اهل الله برای خیر و  
برکت دنیوی و عافیت خود و حصول دعاے مزید نعمت و  
دولت است نه برای نبود منت - گفتند اگر فی الحقیقت  
از تصمیم اراده باطن نیت خیر است نصف غلات از حصه  
رعایا بگیرند بلکه به مظلومان محنت کش زیاده ازان  
بگذارند

2. Write out from memory a رباعي from عمر خیام or a  
قطعه from ابن یمن -

3. Mention a few letters and particles that are used  
redundantly in Persian. Give examples.

4. Translate the following into English, and explain the  
allusions therein:—

(1) زخاک آورد رنگ و بوی و طعام

تهاشاکه دیده و مغز و کام

عسل دادت از نخل و من از هوا

رطب دادت از نخل و نخل از نوا

همه نخل بندگان بخایند دست

ز حیرت که نخلی چنین کس نه بست

خور و ماه و پرویس برای تو اند

قنبدییل سقف سرائے تو اند

(2) بے سکتہ کببول تو نقد عمل دغل  
بے خاتم رضاے تو سعی امل هبما

جائے کہ تیغ قہر برادر مہابت  
ویوان کنند بسیل عرم جنت سبا

(a) Analyse the last couplet according to Persian Grammar.

5. Explain in Persian as clearly as you can :—

بگرفت ههچو لاله دالم در هواے سرو  
اے مرغ بخت کے شوي آخر تورام ما  
دریاے احضر فلک و گشتي هلال  
هستند غرق نعت حاجي قوام ما

6. Give the rules for the use of دال and ذال in Persian.

7. Define زميني and name some books that could be so called.

8. Translate into English and explain in Persian :—

مجاھد اگر نفس اماره کشت  
کلید در فتح دارد بهشت  
چہ حاصل کہ صد خرقة بر تن داري  
خدا رس شوي چون زخود بگذري  
فزوني چو خواهي کم خویش گیر  
وہ این است اگر سالکي پیش گیر

### PERSIAN.—SECOND PAPER.

Translate into English :—

در خواب دیدم در "خیابان ناصریہ" پیرو مرد ریش  
سفید - و ژولیده مو - و پریشان احوال - با اعتدال قامت -  
و تناسب اعضا - کہ لباسہائے فاخرہ در برداشت - نہایاں  
شد - و جوانے دست او را گرفته است - پیرو در نہایت  
هواسانی با جوان صحبت کنان راہ میرفت - و ہر لحظہ



باطرات خود نگران بود - ناگاه از یکطرف شورش عظیمی برپا شد - گروهی از بازاریان و مردمان بیسرو پا و ارذل اطرات پیرمرد را گرفته هر یک چیزے ازو بغارت میر بودند - بوحے بوجودش نیز صدمه رسانیده بسرو و صورتش زخم میزدند - و بعضی دست و پا و اندامش را پاره پاره کرده - گروهی جواهرات جامه اش را بغارت میگرفتند - تا اینکه او را از همه خیزها برهنه ساخته فییه جان بگوشه انداختند - بیچاره با کمال ضعف و ناتوانی باواز حزین فریاد میکرد - که ای فرزندان ناخلف و ای نهکخواران بی وفا گناه من چیست که بدین خواری در خاکم میکشید - در کیفر کدامین خطا بدین عقوبت سخت گرفتار میدارید - و از شدت صدمات وارده ضعف بوجودش مستولی شده گریه کنان از پای در افتاد

Translate into Persian :—

After Tahmuris' (تهمورث) death his nephew Jamshid ascended the throne. They say that wine was invented in his time, and it is well known that he built Istakhar of Fars (Persepolis) which is also called Jamshid's Throne. The historians of Persia will have it that he divided the nation into four grades, first the religious authorities, second the scribes, third the soldiers, fourth the artisans and farmers and traders.

It is recorded that the fixing of the solar years also took place in Jamshid's time. At the beginning of his reign the world was populous and the people were well-off; but at last prosperity having rendered him proud he laid claim to divinity and commanded so that, having made in his likeness, they ordered men to consider him the God of the earth and worship those images. This conduct became the cause of disgust among the people.

### SANSKRIT.—FIRST PAPER.

1. Translate into English :—

एवं संप्रधार्य पादपादवत्तीयं विलङ्कारमाश्रित्य चित्रग्री-  
वच्छलेन हिरण्यकं सभाहूतवान् एह्येहि भो हिरण्यक एहि ।

तच्छब्दं श्रुत्वा हिरण्यको व्यचिन्तयत् किमन्योऽपि कश्चित्  
कपोतो बन्धनशेषस्तिष्ठति येन मां व्याहरति । आह च भोः  
को भवान् । स आह अहं लघुपतनको नाम वायसः ।  
तच्छ्रुत्वा विशेषादन्तलीनो हिरण्यक आह भो द्रुतं गम्यता-  
मस्मात् स्थानात् ॥

(a) State the धातु and प्रत्यय in समाहूतवान् and लीनः.

(b) Conjugate the root श्रि in the third preterite (lun).

2. उपकारगृहीतेन शत्रुणा शत्रुमुदुरेत् ।

पादलम् करस्येन कण्टकेनेव कण्टकम् ॥

चलत्येकेन पादेन तिष्ठत्येकेन बुद्धिमान् ।

नाससीद्व्य परं स्थानं पूर्वमायतनं त्यजेत् ॥

कारुण्यं संविभागश्च यस्य भृत्येषु सर्वदा ।

संभवेत् स सहीपालञ्जैलोक्यस्यापि रत्नणे ॥

(a) Translate the above extracts into English or Hindi.

(b) Parse the underlined words.

3. Write out in prose order :—

सर्वे तस्यादूता लोका यस्यैते त्रय आदूताः ।

अनादूतास्तु यस्यैते सर्वास्तस्या फलाः क्रिया ॥

न चायं न परो लोकस्तस्य चैव परन्तप ।

अमानितां नित्यमेव यस्यैते गुरवस्त्रयः ॥

(a) State the rules of Sandhi in the underlined words.

(b) Conjugate the root मन् and आ + दृ in the present tense.

(c) Decline इहम् and सर्वे in the accusative case in all numbers.

4. Write out the purport in English or Hindi :—

द्वावुपायाविह प्रोक्तौ विमुक्तौ शत्रुदर्शने ।

हस्तयोश्चालनादेको द्वितीयः पादवेगजः ॥

कृत्रिमं नाशमभ्येति वैरं प्राक् कृत्रिमैर्गुणैः ।

प्राणदानं विना वैरं सहजं याति न क्षयम् ॥

(a) Decline द्वि in all cases.

(b) State the प्रकृति and प्रत्यय of कृत्रिमं and सहजम्.

5. तेन सत्याभिसन्धेन त्रिवर्गमनुतिष्ठता ।

पालिता सा पुरी श्रेष्ठा यथेन्द्रेणामरावती ॥

(a) Re-write the above extract, changing the passive into the active construction.

(b) Decline तत् and अनुतिष्ठत् in the nominative case, neuter, gender.

(c) Give the meaning of the words अभिसन्धा and अमरावती.

### SANSKRIT.—SECOND PAPER.

1. Translate into English :—

(a) उद्यमः साहसं धैर्यं बुद्धिः शक्तिः पराक्रमः ।

षडेते यत्र विद्यन्ते तत्र देवः सहायकृत् ॥

(b) क्षमा शस्त्रं करे यस्य दुर्जनः किं करिष्यति ।

अतृणे पतितो वन्हिः स्वयमेव प्रशाम्यति ॥

(c) नन्दन्त्युदित आदित्ये नन्दन्त्यस्तमितेऽहनि ।

आत्मनो नावबुध्यन्ते मनुष्या जीवितक्षयम् ॥

(d) आश्रं छित्वा कुठारेण निम्बं परिचरेत्तु कः ।

यश्चैनं पयसा सिञ्चेन्नैवास्य मधुरो भवेत् ॥

(e) मन्त्री प्रत्युवाच । राजन् भवदन्वेषणाय अमन्त्रे-

कस्मिन्नरण्ये पिपासाकुलः शीतलं नदीसलिलं पिवन्नु-

ज्वलाकारं रत्नमद्राक्षम् । तदादाय गत्वा कञ्चनमध्वानं

किमपि देवमन्दिरं प्रविष्टो दीनं ब्राह्मणमेकमवलोक्य

दयान्वितो तस्मै प्रायच्छम् । सोऽवोचदद्विजन्मा । अनु-

गृहीतोऽस्मि श्रीमतामनेन रत्नदानेन ॥

(f) दशरथो मृगयां कुर्वन्नेकदा संध्यासमये सरयूतीरे स्थितः जलेन पूर्यमानस्य घटस्य शब्दं श्रुत्वा गजनादशङ्कया शब्दपातिना शरेण मुनिपुत्रं निजघान तेन च बोधितान्वयस्ततपित्रोः समीपं तं निनाय । अथ शत्यमुद्धरति नृपे स शिशुर्मृतः । ततः सदारेण वृद्धतापसेन पुत्रशोकादहमिव त्वमपि मृत्युमवाश्रयसीति शप्तः ।

2. Translate the following into Sanskrit :—

(a) The wife of a rich man fell sick : and when she felt that her end drew nigh she called her only daughter to her bedside and said, 'Always be a good girl, and I will watch over you from heaven.'

(b) Forgiveness is an ornament to men as modesty is to women.

(c) Can light and darkness exist together ?

(d) The story is told of some boys who, playing near a pond, saw many frogs in the water and began to throw stones at them. Not a few of the frogs were badly hurt and some were even killed. At last, one of the frogs cried out : "Boys, this may be sport to you ; but it is death to us."

## HISTORY.

*Answers to Parts I and II to be written in separate answer books marked I and II respectively.*

### I.

1. What are the claims of William the conqueror to the English throne ? How did he prosecute them ; and what measures did he take to secure his throne ?

2. Give some account of the Hundred Years' War, with dates of principal battles and treaties.

3. Write short accounts of :—

Simon de Montfort, Mary Queen of Scots, Oliver Cromwell, Nelson.

4. Briefly describe the circumstances which led to

(1) The revolution.

(2) The act of Union with Scotland.

5. State *either* what you know of the Peace of Paris (1763) and The Treaty of Versailles ; or

Give some account of the effect of the Napoleonic Wars upon England.

## II.

6. Give a short account of *either* The Invasion of Alexander or The reign of Asoka.

7. Give a list of the principal invasions of India from the North-West between 1000 A.D. and 1800 A.D.

8. Who were the following :—

Muhammad Tughlak, Bairam khan, Albuquerque, Ranjit Singh, Hyder Ali.

9. Give an account of the policy of Dupleix and account for its failure.

10. What do you know of the administrations of Lord William Bentinck and Lord Ripon.

## GEOGRAPHY.

*Answers to Parts I and II to be written in separate answer books marked I and II respectively.*

### I.

1. "Rivers show us on a large scale what moving water can do to bring about changes of the earth's surface." Explain this statement and illustrate your answer by reference to India.

2. Explain why the rainfall of Bengal is greater than that of Egypt.

3. What are the following :—Delta, Inland Sea, Tableland, Water-parting, Strait. Give one example of each.

4. Name the countries of which the following are the Capitals :—St. Petersburg, Tokyo, Teheran, Rome, Cairo, Copenhagen.

5. Draw a map of *either* (i) India, showing the principal mountain ranges, and the following rivers and towns :—Ganges, Indus, Narbudda, Kaveri Patna, Karachi, Darjeeling, Surat, Trichinopoly, Delhi ; or (ii) England and Wales, naming the boundaries and showing the following rivers and towns :—Thames, Severn, Trent, Tyne, Portsmouth, Manchester, Nottingham, Cardiff, Oxford and York.

6. (a) What are the two principal sea-routes between India and England and through what seas do they pass?  
(b) Through what countries would a railway have to pass from Karachi to Constantinople?
7. (a) Name the four chief rivers of Africa, stating where they rise and into what seas they flow.  
(b) Name from West to East the countries of Africa bordering on the Mediterranean Sea,
8. What are the principal products and industries of Bengal, the United Provinces and Burma?
9. Compare China Proper and Arabia, with regard to their
  - (1) Physical features
  - (2) Populations
  - (3) Trade.
10. Where are the following and for what are they noted :—  
Antwerp, Zanzibar, Genoa, Hong-Kong, Vienna?

## GEOMETRICAL DRAWING, 1907.

*Time allowed—2 hours.*

NOTE.—Scales and figures to be neatly inked in ; all construction lines to be left in pencil.

1. The distance between two places is 35 miles, and measures on a map 4·4 inches. Construct a diagonal scale to suit the map showing 50 miles. Draw a line and on it set off from your scale a distance of 37 miles 3 furlongs.—Show all calculations, figure the scale properly, and note above it the representative fraction.

2. Construct a trapezium ABCD. Side AB 1 inch long ; diagonal AC makes  $30^\circ$  with AB, and is  $1\frac{3}{4}$  inches long ; diagonal BD is  $1\frac{1}{2}$  inches long, and makes  $60^\circ$  with AB. Bisect the side BC in a point E, and on BE construct a regular pentagon outside the trapezium.

3. Inscribe in an octagon of  $\frac{3}{4}$  inch side half as many circles as the figure has sides, each circle to touch two sides and two circles.

4. Inscribe within a circle of 1 inch radius five equal semicircles having adjacent diameters.

5. Two points A and B are  $\frac{3}{4}$ -inch apart. A point O the centre of a circle of  $\frac{1}{2}$ -inch radius is 1 inch, and  $\frac{3}{4}$ -inch from A and B respectively. Describe a circle which shall pass through the points A and B, and touch the given circle.

6. On a straight line 1.25 inches long, describe a segment of a circle containing an angle of  $75^\circ$ . Inscribe a square in this segment.

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## ELEMENTARY PHYSICS AND CHEMISTRY.

1. Define the following terms :—Transparent, Brittle, Dense, Malleable, Pliable, Elastic and Porous.

2. What is meant by the mass of a body? What volume of water at  $4^\circ\text{C}$ . has a mass of a kilogram? If 100 grams just balances  $3\frac{1}{2}$  oz. how many lbs has a mass equal to the mass of a kilogram?

3. A merchant uses a pair of false scales, the beam of which is supported at a point ten inches from one end and eight inches from the other end; if he puts 5 lbs. weight in the pan at the shorter end of the beam, will a customer get more or less than 5lbs. sugar if weighed in the other pan. By what method of weighing will the customer gain? Give reasons.

4. Define density. Describe the methods of finding the densities of liquids by means of a U tube and a density bottle respectively.

If a column of a liquid in a U tube 100 inches high balances a column of water 103 inches high what is the relative density of the liquid?

5. A solid weighs 100 grams in air and its volume is 20 cubic centimetres; find its specific gravity.

6. Describe an experiment showing that a barometer measures the pressure of the atmosphere.

If a mercury barometer stands 30 inches high at sea level, will the height of the mercury be more or less when it is taken : (a) to the top of a high hill ; (b) to the bottom of a deep mine? How will the height of the mercury in a barometer be affected by blowing down the open end of the short tube? Give reasons for your answers.

7. What is a thermometer? Compare a Fahrenheit with a Centigrade thermometer. If the readings on the Fahrenheit thermometer are  $32^{\circ}$ ,  $52^{\circ}$ , and  $212^{\circ}$  respectively, what are the corresponding readings on a Centigrade thermometer?

8. (a) Show by experiments that our hands cannot be depended upon to tell the temperature of a body. (b) Why is a small space left between each two rails in a railway line? (c) Will a cubic foot of ice occupy more or less space when it is all melted into water? (a) Why are iron tyres first heated before being placed on carriage wheels?

9. Distinguish between a solution and a fluid holding matter in suspension. Give examples. What is a saturated solution? Give examples of substances undergoing (a) physical changes, (b) chemical changes, when dissolved in liquids.

10. What are crystals and how are they generally formed? Define Water of Crystallisation, Efflorescent Crystals and Deliquescent Substances.

What are the shapes of the following crystals—Sulphur, Alum, Salt?

### BOOK-KEEPING.

1. Explain the two fundamental principle upon which the science of Book-keeping rests.

2. State very clearly what you understand by "Capital" as the term is used in Book-keeping.

3. How does the Ledger depend upon the Journal, and in what way does "Double Entry" occur?

4. Give a few rules for taking out a "Trial Balance."

5. Distinguish between "Assets" and "Liabilities."

6. Journalise and post the following Balance and close the Ledger:

1902.

Oct. 1—Cash in hand, Rs. 337.

" 5—Paid J. Cummings, Rs. 60.

Received from T. Jones, Rs. 17.

" 7—Paid for House Expenses, Rs. 24

Received from F. Smith, Rs. 14

" 8—Paid Sundry Expenses, Rs. 15.



- „ 9—Balance at Bank, Rs. 4,724.
  - „ 10—Drew cheque for Sims, Rs. 81.
  - „ 11—Paid in, Rs. 362.
  - „ 12—W. Wright paid to my account, Rs. 1,347.
  - „ 14—Drew cheque for salaries, Rs. 120.
  - „ 16—Purchased property for Rs. 1,000.
  - „ 20—Paid J. Miller for alterations, etc., Rs. 150.
  - „ 24—Sold half the property to E. Barnes for Rs. 600.  
(Value remainder at Rs. 550.)
  - „ 30—Paid Interest, Rs. 40. Trade Expenses, Rs. 27.
- 

### POLITICAL ECONOMY.

1. Give short definitions of “Wealth;” “Interest;” “Capital.”
2. Show in your own words how rent arises, and mention the chief causes which may modify the amount of rent actually paid by a tenant.
3. Distinguish between “real” and “nominal” wages and show by an example the importance of the distinction.
4. What is meant by “convertible paper money”? What are its advantages?
5. Explain the objects of Trades Unions.
6. What is “Foreign Trade”? Why should any country import from other countries things which it could produce itself?
7. State the problems of taxation. What reasons are there for diminishing the Salt Tax as much as is possible?

